ARTICLE 9
EASEMENTS

§9.1 Utilities, Pipes and Conduits. Each Owner shall have an easement, in common with all other Unit Owners, to use all pipes, wires, ducts, cables, conduits, public utility lines and other Common Easements serving his Unit and located in any of the other Units. Each Unit shall be subject to an easement in favor of other Unit Owners to use the pipes, ducts, cables, wires, conduits, public utility lines and other Common Elements serving such other Units and located in such Unit. The Association shall have the right to grant to third parties additional permits, licenses and easements over and through the Common Elements for utilities, ways, and other purposes reasonably necessary or useful for the proper maintenance and operation of the Condominium.

§9.2 Access. Subject to the terms of this Declaration, the Bylaws and the Rules and Regulations, each Unit Owner shall have an easement in common with all other Unit Owners to use the Common Elements as a means of access to and from his Unit.

§9.3 Association and Board of Directors Access. The Association and its officers and directors and such persons as may be authorized by the Board of Directors shall have the right of access to each Unit, as provided in Section 1603-107(a) of the Condominium Act for the inspection, maintenance, repair or replacement of the Common Elements and Limited Common Elements located in the Unit or accessible from the Unit or for making any addition or improvements thereto; or to make repairs to any Unit, the Common Elements or the Limited Common Elements if such repairs are reasonably necessary for public safety or to prevent damage to any other Unit, the Common Elements or the Limited Common Elements; or to abate any violation of law, orders, rules or regulations of the Association or of any governmental authorities having jurisdiction thereof. In case of an emergency, such right of entry shall be immediate whether or not the Unit Owner is present at the time. Upon request of the Association, each Unit Owner shall provide the Association with a copy of each key to the Unit.

§9.4 Encroachments. Each Unit and the Common Elements are subject to an easement for structural and lateral support in favor of every other Unit. If any portion of the Common Elements or Limited Common Elements hereafter encroach upon any Unit, or if any Unit hereafter encroaches upon any other Unit or upon any portion of the Common Elements or Limited Common Elements, as a result of settling or shifting of any building in which they are located, other than as a result of the willful or negligent act or omission of the owner of the encroaching Unit or of the Association in the case of encroachments by the Common Elements or Limited Common Elements, then a valid easement for the encroachment and for the maintenance of the same shall exist. In the event that a building is partially destroyed as a result of fire or other casualty or as a result of a taking by eminent domain or by deed in lieu of condemnation and is subsequently rebuilt, encroachments due to such rebuilding shall be permitted, and valid easements appurtenant thereto shall exist.

§9.5 Ancillary Easements through Common Elements. The Common Elements (including, but not limited to, the Limited Common Elements) adjacent to a Unit are subject to the following easements in favor of the adjacent Unit:

(i) For the installation, repair, maintenance, use, removal and/or replacement of pipes, ducts, heating and air conditioning systems, electrical, cable television, telephone and other communication wiring and cables and all other utility lines and conduits which are a part of or serve any Unit and which pass across or through a portion of the Common Elements.

(ii) For the installation, repair, maintenance, use, removal and/or replacement of lighting fixtures, electrical receptacles, panel boards and other electrical installations which are a part of or serve any Unit but which encroach into a part of a Common Elements adjacent to such Unit; provided that the installation, repair maintenance, use, removal or replacement of any part of the Common Elements shall not adversely affect either the thermal, fire safety or acoustical character of the building or impair or structurally weaken the building.

(iii) For driving and removing nails, screws, bolts and other attachment devices into the Unit side surface of the studs which support the sheet rock or plaster perimeter walls bounding the Unit, the bottom surface of joists above the Unit and the top surface of the floor joists below the floor of a Unit to the extent such nails, screws, bolts and other attachment devices may encroach into a part of a Common Element adjacent to such Unit; provided that any such action will not unreasonably interfere with the common use of any part of the Common Elements, or adversely affect either the thermal, safety, or acoustical character of the buildings or impair or structurally weaken the buildings.

ARTICLE 10
RIGHTS OF MORTGAGE LENDERS ON UNITS

§10.1 Right to Mortgage. Each Unit Owner shall have the right to mortgage or encumber his own respective Unit together with its appurtenant Allocated Interests. Except as provided by Section 1603-112 of the Condominium Act, a Unit Owner may not mortgage or encumber the Common Elements in any manner except as a component of the Allocated Interests appurtenant to his Unit.

§10.2 Identification of Mortgagee. A Unit Owner who mortgages his Unit shall notify the Board of Directors in writing of the name and address of his Mortgagee(s).

§10.3 Mortgage Foreclosure and Dispositions. Any holder of a first mortgage covering a Unit which obtains title to the Unit pursuant to a foreclosure or other exercise of the remedies provided in the Mortgage or through deed in lieu of foreclosure after written notice of default which deed identifies the circumstances classifying it as such a deed shall take title to the Unit with its appurtenant Allocated Interests, free of any claims for unpaid assessments for Common Expenses, Service Charges, late fees, interest and costs levied against such Unit which accrued prior to the acquisition of title to such Unit by the Mortgagee, other than the proportionate share of the Common Expenses which become due and payable from and after the date on which the Mortgagee shall acquire title to the Unit through a completed foreclosure or deed in lieu of foreclosure.

In the event the Association adopts any right of first refusal or purchase option arising in the event of the sale or transfer of a Unit, it shall not impair the right of an institutional mortgage lender to foreclose its mortgage, to accept a deed in lieu of foreclosure after written notice of default which deed identifies the circumstances classifying it as such a deed, or to dispose or lease a Unit so acquired.

§10.4 Eligible Mortgage Holder. "Eligible Mortgage Holder" means the holder of record of a recorded first Mortgage encumbering a Unit (a "Mortgage") which has delivered written notice to the Association, by prepaid United States Mail, return receipt requested, or by delivery in hand securing a receipt therefore, stating: (a) the name and address of the holder of the Mortgage, (2) the name and address of the owner of the Unit encumbered by such Mortgage, (3) the identifying number of such Unit, and (4) containing a statement that such Mortgage is a recorded first mortgage. The Secretary or manager of the Association shall maintain such information.

Eligible Mortgage Holders shall have all rights specified in the Condominium Act. Furthermore after the filing of the request by an Eligible Mortgage Holder, the Board shall cause notice to be sent to the Eligible Mortgage Holders (and any insurers or guarantors of such mortgages identified in the request), if any, of any one or more of the following events affecting the mortgaged Unit(s), if so requested.

i. Default in the payment of Common Charges, Assessments, Service Charges, or other amounts due the Association which continues for Sixty (60) days or as required by the Condominium Act;

ii. Default or violation of the Condominium Documents, or any proceedings by the Association relating thereto;

iii. The expiration, cancellation or material modification of insurance required to be maintained under the Declaration or Bylaws of the Association;

iv. A material amendment to the Declaration requiring the consent of Eligible Mortgage Holders;

v. Termination of the Condominium pursuant to Section 1602-118 of the Condominium Act;

vi. Change in the Allocated Interests of a Unit, voting rights, a change in Unit boundaries or the subdivision of a Unit;

vii. The merger or consolidation of the Condominium with another condominium;

viii. The conveyance or subjection to a security interest of any portion of the Common Elements; and

ix. The lapse, cancellation or material modification of any insurance policy maintained by the Association or any use of any hazard insurance proceeds other than for repair or restoration of the Property.

x. Such other events specified in the Condominium Act.

If in said request to the Association forwarded by an Eligible Mortgage Holder the mortgage is identified as being subject to the requirements of the Federal Home Loan Mortgage Corporation, the Federal National Mortgage Association, the Veterans' Administration, the Federal Housing Administration or other recognized institutional mortgage programs, then the Association shall maintain such hazard and other insurance policies and coverage required under said mortgage programs and identified in said notice from the institutional mortgage holder, to the extent such insurance is available to the Association.

§10.5 Mortgagee Approval Rights. For a material amendment to the Declaration or any of the actions specified below but subject in any event to the provisions of the Condominium Act, Eligible Mortgage Holders shall have the right but not the obligation in place of the unit owner to cast the votes allocated to that Unit or give or withhold any consent required of the Unit owner for such action by delivering written notice to the association with a copy to the unit owner prior to or at the time of the taking of the proposed action, which notice shall be sent by prepaid United States mail, return receipt requested, or by delivery in hand. Failure of the Eligible Mortgage Holder to so exercise such rights shall constitute a waiver thereof and shall not preclude the Unit owner from exercising such right. An amendment affecting any of the following is considered material:

i. Voting rights in the Association;

ii. Change in percentage liability for common expenses, assessment liens for common expenses, priority of assessment liens, or the subordination of assessment liens, or increases in the assessments of more than 25% over the prior year;

iii. Reduction in reserves for maintenance, repair and replacement of Common Elements;

iv. Responsibility for maintenance and repairs;

v. Reallocation of pro rata interests in the Common Elements, the Limited Common Element or rights to their use;

vi. Alteration of the definitions of the boundaries of any Unit, including the partition or subdivision of a Unit;

vii. Convertibility of Units into Common Elements or vice versa;

viii. Expansion or contraction of the Condominium, or the addition, annexation or withdrawal of property to or from the Condominium;

ix. Hazard insurance or fidelity bond requirements;

x. Imposition of any further restrictions on the leasing of Units;

xi. Imposition of any restrictions on a Unit Owner's right to sell or transfer his or her Unit;

xii. A decision by the Association to establish self-management after more than 50 Units have been created when professional management had been required previously by an Eligible Mortgage Holder or by the Condominium Declaration or the Bylaws;

xiii. Restoration or repair of the Property (after damage or destruction, or partial taking by eminent domain or condemnation) in a manner other than that specified in this Declaration;

xiv. Any action to terminate the Condominium after substantial damage destruction or condemnation occurs;

xv. Any provisions of this Article and any other provision of this Declaration expressly benefits mortgage holders, insurers or guarantors; or

xvi. Any provisions of this Article.

When Unit Owners are considering termination of the Condominium for reasons other than substantial damage, destruction or taking by eminent domain of the Condominium, the Eligible Mortgage Holders representing at least Sixty-Seven percent (67%) of the votes of Units subject to mortgages held by Eligible Holders must agree.

Approval shall be presumed when an Eligible Mortgage Holder is sent a written request for approval of a proposed amendment by registered or certified mail, return receipt requested, and then fails to submit a response within 60 calendar days after the notice is received.

§10.6 Mortgagee Priority. No provision of the Condominium Documents shall be deemed or construed to give a Unit Owner, or any other person, priority over the rights of any Eligible Mortgage Holder under its mortgage in the case of a distribution of insurance proceeds or condemnation awards for losses to or taking of Units, Common Elements, or both.

§10.7 Records. An Eligible Mortgage Holder may examine the books, records and accounts of the Association at reasonable times. The Association shall maintain current copies of this Declaration, the Association's articles of incorporation, Bylaws, and other Rules and Regulations concerning the Condominium as well as its own books, records, and financial statements available for inspection by Unit Owners or by any Eligible Mortgage Holder, insurers, and guarantors of first mortgages that are secured by Units available during normal business hours. Upon written request, any Eligible Mortgage Holder may obtain an audited statement of the Association's fiscal affairs prepared by an independent certified public accountant once the Condominium has been established for a full fiscal year, which preparation shall be prepared at the Eligible Mortgage Holder's expense.

ARTICLE 11
INSURANCE

§11.1 General. No later than the date of the first conveyance of a Unit to a person other than the Declarant, the Association shall obtain and maintain as a Common Expense, the policies of insurance described below to the extent such policies shall be reasonably available. If such insurance is not maintained, then the Association shall give written notice thereof to the Unit Owners and the Eligible Mortgage Holders. To the extent that such insurance subsequently becomes unavailable, the Association shall obtain as a substitution the most comparable insurance available. The Board of Directors is hereby irrevocably appointed as attorney-in-fact for each Unit Owner and for each Mortgagee and Eligible Mortgage Holder and for each owner of any other interest in the Property, for purchasing and maintaining the insurance, for the collection and disposition of any insurance, including distribution pursuant to Section 1603-113(c) of the Condominium Act, for the negotiation of losses and execution of releases of liability, and for the execution of all documents, and performance of all other acts necessary to accomplish these purposes.

§11.2 Property and Casualty Insurance for Units and Common Elements. The Association shall obtain and maintain in effect insurance policy covering direct physical loss to the Property with extended coverage, vandalism, malicious mischief, windstorm, debris removal, cost of demolition and water damage endorsements, issued by an insurance company authorized to do business in the State of Maine (which company shall also meet the ratings requirements of the Federal National Mortgage Association), insuring as a single entity the entire Property including the Common Elements, the Limited Common Elements Units, and the fixtures, supplies and common personal property belonging to the Association , *excepting* the land, foundations, excavations, and other similar items customarily excluded from property insurance policies and also *excepting* furniture, furnishings or other personal property supplied or installed by Unit Owners. The policy shall cover the interests of and name as insureds the Association, the Board of Directors, and all Unit Owners and their Mortgagees as their insurable interests may appear.

Such blanket or master insurance policy shall be in an amount equal to one hundred percent (100%) of the then current full replacement cost of the insured Property (exclusive of the land, excavations, foundations and other similar items customarily excluded from such coverage), without deduction for depreciation, together with coverage for the payment of common expenses with respect to damaged Units during the period of reconstruction. Such insurance policy may, at the option of the Board of Directors, contain such deductible as the Board of Directors shall reasonably deem appropriate but not to exceed the lesser of $10,000 or one (1) percent of the policy's face amount. Unless otherwise established by the Board of Directors from time to time, a Unit Owner shall pay the expense of repair of damage to his Unit in the initial deductible amount of $1,000 (as such greater amount as may be revised by the Rules and Regulations adopted by the Board of Directors from time to time) not covered by the insurance; the Association shall not be responsible for the costs of repair of damage to the Unit in the amount of the insurance deductible. Such casualty insurance policy shall also include the following provisions:

(i) The following endorsements or their equivalent: (a) "no control," meaning that coverage shall not be prejudiced by any act or neglect of any occupant or Unit Owner or their agents, when such act or neglect is not within the control of the insured, or the Unit Owners collectively, nor by any failure of the insured, or the Unit Owners collectively, to comply with any warranty or condition with regard to any portion of the Condominium

over which the insured, or the Unit Owners collectively, have no control; (b) "Construction Code Endorsement" or "increased cost of construction," (c) "agreed amount" or elimination of co-insurance clause; and (d) "inflation guard," when it can be obtained.

(ii) That any "no other insurance" clause shall expressly exclude individual Unit Owners' policies from its operation, so that the physical damage policy purchased by the Board of Directors shall be deemed primary coverage and any individual Unit Owners' policies shall be deemed excess coverage, and in no event shall the insurance coverage obtained and maintained by the Board of Directors hereunder provide for or be brought into contribution with insurance purchased by individual Unit Owners or their Mortgagees;

(iii) The recognition of any Insurance Trust Agreement whereby the Board of Directors may designate in writing an Insurance Trustee to hold any insurance proceeds in trust for disbursement, as provided in Section 11.3 below; and

(iv) A standard "mortgagee clause" which shall: (a) provide that any reference to a mortgagee in such policy shall mean and include all holders of mortgages of any Unit, in their respective order and preference, whether or not named therein; (b) provide that such insurance as to the interest of any mortgagee shall not be invalidated by any act or neglect of the owners or any persons under any of them; and (c) waive any provision invalidating such mortgagee clauses by reason of the failure of any mortgagee to notify the insurer of any hazardous use or vacancy.

§11.3 Casualty Losses, Adjustment and Payment; Insurance Trustee. Any loss covered by the insurance policy described in Section 10.2 above shall be adjusted with the Association acting through its Board of Directors, but the insurance proceeds shall be payable to the Insurance Trustee designated for that purpose, if any, as provided in the Condominium Act and otherwise to the Association, and not to any Mortgagee. Any affected Unit Owner shall have ten (10) business days after receiving notice of the Association's proposed settlement with an insurance carrier in which to dispute the amount and terms of settlement with respect to his Unit; if the Unit owner objects then the Association may elect to assign such Unit damage claim to the objecting Unit owner and its mortgagee without further liability to the Unit Owner so that the Association may settle the balance of the claim and fund repairs for the benefit of the non-objecting Unit Owners.

The Insurance Trustee or the Association as applicable shall hold any insurance proceeds in trust for Unit Owners, Mortgagees and other lien holders as their interests may appear. The Board of Directors shall cause the Insurance Trustee or the Association to obtain a surety bond in 100% of the amount of the insurance proceeds for the faithful performance of the duties as insurance trustee before it shall be entitled to receive such proceeds. Subject to the provisions of this Article, the Bylaws and Section 1603-113(e) of the Condominium Act, the proceeds shall be disbursed first for the repair or restoration of the damage to the Property. Unit Owners, Mortgagees and other lien holders are not entitled to receive payment of any portion of the proceeds, unless either (i) there is a surplus of proceeds after the damaged Common Elements and Units have been repaired or restored, or (ii) the decision has been made not to repair or restore the damage as provided in Section 1603-113(h) of the Condominium Act, or (iii) the Condominium is terminated in whole or part.

§11.4 Liability Insurance. The Board of Directors shall obtain and maintain, as a Common Expense, comprehensive general public liability insurance (including medical payments insurance) and property damage insurance in such limits as the Board may from time to time determine, insuring each Board of Directors member, the managing agent, each Unit Owner and the Declarant against any liability to the public or to the Unit Owners (and their invitees, agents and employees) covering all occurrences commonly insured against for death, bodily injury or property damage, arising out of the maintenance, ownership or use of the Common Elements, and for any legal liability resulting from suits or actions related to employment contracts to which the Association is a party. Such insurance shall be issued on a comprehensive liability basis and shall contain: (a) a cross liability endorsement, under which the rights of a named insured under the policy shall not be prejudiced with respect to his action against another named insured; (b) hired and non-owned vehicle coverage; (c) a "severability of interest" endorsement, which shall preclude the insurer from denying liability to a Unit Owner because of negligent acts of the Association or of another Unit Owner; and (d) a broad form liability extension endorsement including "personal injury," contractual liability, and other coverage commonly included in such broad form endorsement. The Board of Directors shall review such limits once each year, but in no event shall such insurance be less than one million dollars ($1,000,000.00) covering all claims for bodily injury or property damage arising out of one occurrence.

§11.5 Additional Required Provisions. All insurance policies required to be carried by the Association under this Article shall in addition contain the following provisions or features:

i. The insurer waives any right to claim by way of subrogation against the Declarant, the Association, the Board of Directors, the managing agent or the Unit Owners, and their respective agents, employees, guests and, in the case of the Unit Owners, the members of their households;

ii. The Declarant, so long as the Declarant shall own any Unit, shall be protected by all such policies as a Unit Owner.

iii. Each Unit Owner is an insured person under the policy with respect to liability arising out of the ownership of an undivided interest in the Common Elements or membership in the Association;

iv. The insurer waives its right to subrogation under the policy against any Unit Owner or members of his household;

v. No act or omission by any Unit Owner, unless acting within the scope of his authority on behalf of the Association, will void the policy or be a condition to recovery under the policy; and

vi. If at the time of a loss under the Association's policy, there is other insurance in the name of a Unit Owner covering the same risk covered by the policy, the Association's policy provides primary insurance.

§11.6 Other Insurance. The Board of Directors shall obtain and maintain as a Common Expense:

(i) To the extent reasonably available, "directors and officers'" liability insurance, to satisfy the indemnification obligations of the Association;

(ii) Workers' compensation insurance, if and to the extent necessary to meet the requirements of law;

(iii) Flood insurance if any or all of the Property is located in a special flood hazard area equal to the greater of 100% of the insurable value of the Property or the maximum coverage available under the appropriate national Flood Insurance Administration program. A blanket or master policy shall be obtained which includes a maximum deductible of the lesser of $5,000 or one percent (1.00%) of the policy face amount; and

(iv) Such other insurance as the Board of Directors may determine, as may be requested by a majority of the Unit Owners, or as may be required by Federal National Mortgage Association Guidelines (including, without limitation, fidelity bond coverage).

§11.7 Memoranda and Cancellation. All insurers that shall issue an insurance policy or policies under this Article shall issue certificates or memoranda of insurance to the Association, and, upon request, to any Unit Owner or Mortgagee.

All such insurers issuing the policy may not cancel (including cancellation for non-payment of premium), substantially modify, or refuse to renew such policy or policies until twenty (20) days after notice of the proposed cancellation of non-renewal has been mailed to the Association, the managing agent, each Unit Owner and each Mortgagee to whom a certificate or memorandum of insurance has been issued at their respective last known addresses.

§11.8 Separate Insurance. Each Unit Owner should obtain at his own expense, a personal condominium insurance policy (form type HO-6 as established by Insurance Services Office, Inc.) for damage to his Unit and personal property for his own benefit and for his personal liability as well as upon any improvements made by him to his Unit under coverage normally called "improvements and betterments coverage;" provided, however, that no Unit Owner shall be entitled to exercise his right to acquire or maintain such insurance coverage which would decrease the amount which the Association on behalf of all Unit Owners may realize under any insurance policy maintained by the Association, or to cause any insurance coverage maintained by the Association to be brought into contribution with insurance coverage obtained by a Unit Owner. All such Unit Owner's policies shall contain waivers of subrogation in favor of the Association. The Association shall have no responsibility for ascertaining whether or not the Unit Owner maintains such insurance in effect.

Notwithstanding any other provision of this Declaration, during the period a building or other associated improvements are under construction prior to the creation of Units therein, the Declarant shall be responsible for procuring casualty insurance on the building and the proceeds of such insurance shall be the exclusive property of the Declarant and its mortgagee.

ARTICLE 12
DAMAGE OR DESTRUCTION.

§12.1 Repair. Any portion of the Property damaged or destroyed shall be repaired or replaced promptly by the Association unless:

i. The Condominium is terminated;

ii. Repair or replacement would be illegal under any state or local health or safety statute or ordinance; or

iii. One Hundred percent (100%) in interest of the Unit Owners vote not to rebuild, including every owner of a Unit or limited common area which would not be rebuilt, and including the consent of the Eligible Mortgage Holders as required herein.

The cost of repair or replacement in excess of insurance proceeds and reserves or not covered by any deductible shall be a common expense, provided that Unit Owners shall be responsible for $1,000 of the insurance deductible for damage to their Units or such greater portion of the deductible established by the Rules and Regulations adopted from time to time by the Board of Directors.

§12.2 Application of Insurance Proceeds. If the entire Property is not completely repaired or replaced:

i. the insurance proceeds attributable to the damaged Units and Common Elements shall be used to restore the damaged areas to a condition compatible with the remainder of the Condominium;

ii. the insurance proceeds attributable to Units which are not rebuilt, including without limitation the interest in the Common Elements and in Limited Common Element, shall be distributed to such Unit Owners and their mortgagees; and

iii. the remainder of the proceeds shall be held in trust to be distributed to the Unit Owners and their mortgagees in accordance with the Condominium Act.

Any loss covered by such insurance shall be adjusted with the Association, which shall exclusively represent all Unit Owners in any proceedings, negotiations, settlements or agreements. The insurance proceeds shall be paid to the Association as trustee for the Unit Owners and lien holders as their interests may appear. Mortgagees' liens shall transfer in order of priority to the insurance proceeds. Notwithstanding the provisions of this Section, Article 13 of the Declaration governs the distribution of insurance proceeds if the Condominium is terminated. If the members vote not to rebuild any Unit, that Unit's percentage interest in the Common Elements shall be automatically reallocated to the then remaining Units in proportion to their percentage interests prior to the reallocation, and the Association shall promptly prepare, execute and record an amendment to the Declaration reflecting the reallocation. Unless a Unit Owner has requested and received written confirmation from both the Association and the Association's hazard insurance carrier of optional insurance coverage for the owner's permanent improvements and betterments within the Unit, the Unit Owner shall be responsible for the expense of repair or replacement.

Notwithstanding any other provision of this Declaration, during the period a building is under construction prior to its creation as a Unit and the time the Unit commences paying common charges, the Declarant shall be responsible for procuring casualty insurance on the

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building and the proceeds of such insurance shall be the exclusive property of the Declarant and its mortgagee.

ARTICLE 13
TERMINATION OF CONDOMINIUM

§13.1 Termination. In accordance with Condominium Act, the Condominium may be terminated in whole or part with the agreement of the Owners of Units to which at least eighty (80) percent of the Votes in the Association are allocated, and that percentage of Eligible Mortgage Holders required herein and the Condominium Act. Termination shall not bar the subsequent resubmission of the Property to the Condominium Act.

§13.2 Effect of Termination. Upon removal of the Property from the Condominium Act, the Unit Owners shall hold the Property and any proceeds thereof as tenants in common in accordance with the Condominium Act and subject to the Condominium Act with any mortgages or liens affecting a Unit to attach in order of priority against the resulting interest.

ARTICLE 14.
EMINENT DOMAIN.

§14.1 Acquisition of Unit(s). If a Unit is acquired by eminent domain, to the extent the award is paid to the Association or is controlled by this Declaration or the Association, the award shall be applied to compensate the Unit Owner and his mortgagee(s), if any, for the Unit and its percentage interest in the Common Elements, whether or not any Common Elements are acquired. Upon acquisition of the Unit, its Allocated Interests shall be automatically reallocated to the remaining Units in proportion to their respective Allocated Interests before the taking, and the Association shall promptly prepare, execute, and record an instrument reflecting the reallocations.

If part of a Unit is acquired by eminent domain, to the extent the award is paid to the Association or is controlled by this Declaration or the Association, the award shall be applied to compensate the Unit Owner and his mortgagee(s), if any, for the reduction in value of the Unit and its interest in the Common Elements, whether or not any Common Elements are acquired. Upon such acquisition, (i) that Unit's Allocated Interests shall be reduced in proportion to the reduction in the size of the Unit, and (ii) the portion of the allocated interest divested from the partially acquired Unit shall automatically be reallocated to that Unit and the remaining Units in proportion to their respective Allocated Interests, with the partially acquired Unit participating in the reallocation on the basis of its reduced Allocated Interests provided however, that each Unit shall continue to have one vote to permit equality among Units.

§14.2 Acquisition of Common Elements. If part of the Common Elements are acquired by eminent domain, the Association shall be entitled to payment of the award, subject, however, to the Condominium Act; generally the portion of the award attributable to the Common Elements taken shall be distributed to the Unit Owners and their mortgagee(s) in accordance with the Condominium Act, unless the Association rebuilds or acquires comparable elements. Any portion of an award attributable to the acquisition of a Limited

Common Elements or as may otherwise benefit the Condominium as determined by a Court of competent jurisdiction must be equally divided among the owners of the Units to which that Limited Common Element was allocated at the time of acquisition in proportion to their interests in the Common Elements.

§14.3 Rights of the Association and Mortgage Holders. In the event of a proposed acquisition by eminent domain, the Association shall have the right but not the obligation to act and to intervene on behalf of Unit Owners. Nothing contained in this Declaration, the Bylaws or any rule or regulation adopted by the Association, however, shall entitle any Unit Owner or other person to priority over a first mortgagee of a Unit pursuant to its mortgage instrument in the right to receive eminent domain awards for the taking of Units and/or Common Elements.

ARTICLE 15
AMENDMENTS

§15.1 General. Certain amendments to this Declaration may be made unilaterally by the Declarant in accordance with this Declaration and the Condominium Act. In addition, certain amendments may be unilaterally executed and recorded by the Association as described in Condominium Act Sections 1601-107, Eminent Domain, 1602-108(c), Allocation of Limited Common Elements, 1602-112(a), Relocation of Boundaries Between Adjoining Units, 1602-113, Subdivision of Units and 1602-117(a), Amendment of Declaration, and certain amendments to this Declaration may be made by certain U in Sections 1602-108(b), Reallocation of Limited Common Elements, 1602-112(a), Relocation of Boundaries Between Adjoining Units, 1602-113(b), Subdivision of Units, or 1602-118(b) of the Condominium Act.

Otherwise subject to the other provisions of this Declaration and of the Condominium Act, the Declaration and the accompanying Plats and the Plans may be amended as follows:

(a) *Before Any Conveyance.* Prior to the conveyance of any Unit by the Declarant to a third party purchaser (other than as security for an obligation), the Declarant shall have the right to unilaterally amend and re-amend this Declaration in any manner that the Declarant may deem appropriate.

(b) *After First Conveyance.* After the first conveyance of Unit by a Declarant to a third party purchaser, the terms of the following procedures shall apply to an amendment of this Declaration:

(i) *Development and Special Declarant Rights.* Notwithstanding any other provision of this Declaration, the Declarant acting unilaterally may record amendments to this Declaration which result from the exercise of Development and Special Declarant Rights pursuant to this Declaration and/or the Act.

(ii) *Proposal and Notice.* An amendment to the Declaration may be proposed by either the Board of Directors or by Unit Owners holding at least twenty (20) percent of the votes in the Association. Notice of the subject matter of a proposed amendment, including the proposed text thereof, shall be included in the notice of

any meeting in which a proposed amendment is to be considered, and such notice shall be given to all Unit Owners and all eligible Mortgage Holders.

(ii) *Approval.* The amendment shall be adopted if it receives the affirmative vote or written consent of Sixty-Seven percent (67%) or more of the total percentage in interest of all votes in the Association in all cases and such Eligible Mortgage Holders as may be required herein. Unit Owners and mortgagees may express their approval in writing or by proxy. Provided however that no amendment may change the uses to which a Unit may be put without the unanimous consent of the owners of Units affected. Except as specifically provided to the contrary in this Declaration or the Act, no amendment may alter the boundaries of a Unit or the Allocated Interests allocated to a Unit without the unanimous consent of all affected owners.

(iii) *By Written Agreement.* In the alternative, an amendment may be made by an agreement signed by the record Owners of Units to which are allocated one hundred percent (100%) of the Units in the manner required for the execution of a deed and acknowledged by at least one of them, together with any required approval by Eligible Mortgage Holders, and such amendment shall be effective when certified and recorded as provided below.

§15.2 Proviso; Consent of Declarant. No amendment of this Declaration shall make any change which would in any way affect any of the rights, privileges, powers and options of the Declarant, its successors or assigns, unless the Declarant shall approve such amendment.

§15.3 Notice, Execution and Recording. After each amendment to this Declaration adopted by the Association pursuant to this Article has been recorded, notice thereof shall be sent to all Unit Owners and to all Eligible Mortgage Holders, but failure to send such notices shall not affect the validity of such amendment. A certificate of each such amendment shall be executed and acknowledged by such officer(s) or director(s) of the Association designated for that purpose by the Bylaws. The amendment shall be effective when such certificate and copy of the Amendment are recorded.

§15.4 Notice and Challenge. No action to challenge the validity of an amendment to this Declaration adopted by the Association may be brought more than one (1) year after such amendment is recorded.

ARTICLE 16
GENERAL PROVISIONS

§16.1 Enforcement. The failure to comply with the terms of this Declaration, the Bylaws and the Rules and Regulations adopted pursuant thereto shall entitle the Association to (a) take court action, including without limitation suit for injunctive relief, and/or (b) take such further action as permitted under the Bylaws, and/or (c) enter the Unit or Common Elements in which such violation or breach exists and summarily to abate and cure the violation at the expense of the defaulting Unit Owner, and the Board of Directors shall not be deemed guilty in any manner of trespass when enforcing these terms. The exercise of any one remedy shall not

preclude the exercise of other remedies provided by law, the Condominium Act, this Declaration or in the Bylaws. In any such enforcement action or proceeding the Association shall be entitled to recover the costs of the proceeding, including reasonable attorney's fees and costs, with interest.

The failure of the Board of Directors to enforce any covenant, restriction or other provision of the Condominium Act, the Bylaws or the Rules and Regulations adopted pursuant thereto, shall not constitute a waiver of the right to do so thereafter.

§16.2 Units Not Yet Separately Assessed. In the event that for any year real estate taxes are not separately taxed and assessed to each separate Unit Owner but are taxed on the Property as a whole, then each Unit Owner shall pay his proportionate share thereof in accordance with his respective Common Expense Liabilities.

§16.3 Conflict. If any provision of this Declaration, the Bylaws or the Rules and Regulations conflicts with any applicable laws, including, but not limited to, the Condominium Act, then the laws shall be deemed controlling; but the validity of the remainder of this Declaration, the Bylaws and Rules and Regulations, and the application of any such provision, section, clause, phrase, or word in other circumstances shall not be affected thereby.

§16.4 Severability. The invalidity of any provision of this Declaration shall not be deemed to impair or affect in any manner the validity, enforceability or effect of the remainder of this Declaration, and in such event, all of the other provisions of this Declaration shall continue in full force and effect as if such invalid provision had never been included herein.

§16.5 Waiver. No provision contained in this Declaration shall be deemed to have been abrogated or waived by reason of any failure to enforce the same irrespective of the number of violations or breaches which may occur.

§16.6 Captions. The headings in this Declaration are for purposes of reference only, and shall not limit or otherwise affect the meaning hereof. The table of contents is attached to this Declaration for purposes of reference and convenience only, and shall neither limit nor otherwise affect the meaning of this Declaration. References in this Declaration to Articles, and Schedules without references to the document in which they are contained are references to this Declaration. Schedules are attached to and incorporated by reference into this Declaration.

§16.7 Gender, Number, Etc. The use of the singular number in this Declaration shall be deemed to include the plural, the plural the singular, and the use of any one gender shall be deemed applicable to all genders.

§16.8 Power to Interpret. Any dispute or disagreement with any person other than the Declarant with respect to interpretation or application of this Declaration or the Bylaws or the Rules and Regulations shall be determined by the Board of Directors, which determination shall be final and binding on all parties.

§16.9 Disputes with Declarant and Arbitration. In any dispute between one or more Unit Owners and the Declarant regarding the Common Elements, the Board of Directors shall

act for the Unit Owners, and any agreement with respect thereto by the Board of Directors shall be conclusive and binding upon the Unit Owners.

All claims, disputes and other matters in question between the Declarant, on the one hand, and the Association or any Unit Owner(s), on the other hand, arising out of or relating to a Unit, the Common Elements, the Limited Common Elements, this Declaration, the Bylaws, the Rules and Regulations, or the deed to any Unit or the breach thereof, or the course of dealing between any Unit Owner, the Association and the Declarant, except for claims which have been waived by the acceptance of a deed, shall be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association then obtaining unless the parties mutually agree otherwise in writing. This agreement to arbitrate shall be specifically enforceable under the prevailing arbitration law. The award rendered by the arbitrators shall be final, and judgment may be entered upon it in accordance applicable law in any court having jurisdiction thereof.

ARTICLE 17
NOTICES

§17.1 Notices.

(a) *To Unit Owners.* All notices, demands, bills and statements or other communications affecting the Condominium shall be given to Unit Owners by the Association in writing and shall be delivered in hand, delivered to the Unit, or sent by United States mail, postage prepaid. If such notification is of a default or lien, then it shall be sent by registered or certified United States mail, return receipt requested, postage prepaid, addressed to the Unit Owner at the address which the Unit Owner shall designate in writing and file with the Secretary of the Association, or if no such address is so designated, the address of the Unit of such Unit Owner who is the record owner thereof.

(b) *Notice to the Association.* All notices, demands, statements or other communications affecting the condominium given by the Unit Owners to the Association shall be in writing, and shall be deemed to be delivered personally, securing a written receipt therefore, or sent by United States mail, postage prepaid, return receipt requested, addressed to the Association at the principal office of the managing agent, if any, and to the secretary of the Association at the Secretary's address.

(c) *Notice to Eligible Mortgage Holder.* All notices, demands, statements or other communications affecting the Condominium given by the Association to any Eligible Mortgage Holder shall be in writing and shall be delivered personally, securing a written receipt, or sent by United States mail, postage prepaid, addressed to the Eligible Mortgage Holder at the address identified pursuant to the notice given to the Association when it became an Eligible Mortgage Holder.

WITNESS its hand and seal as of _____ ____, 2007.

HRC-VILLAGE AT LITTLE FALLS, LLC

_____ By: _____
Witness _____, its Manager

STATE OF MAINE
Cumberland, ss _____ ____, 2007

Personally appeared the above-named _____ in her said capacity and acknowledged the foregoing Declaration to be his free act and deed, and the free act and deed of said limited liability company, before me,

_____
Name: _____
Attorney at Law/Notary Public

Exhibit A	Legal Description of Land
Exhibit B	Condominium Plat
Exhibit C	Condominium Floor Plans
Exhibit D	Allocated Interests
Exhibit E	Condominium Association Bylaws

DECLAR SMITH FARM .DOC
3/23/2007

Exhibit A
Legal Description of the Land

A certain lot or parcel of land located on the easterly side of Depot Street in the Town of Windham, County of Cumberland and State of Maine, being more particularly bounded and described as follows:

DECLAR SMITH FARM .DOC
3/23/2007

Exhibit B Condominium Plat

Exhibit C Condominium Floor Plans

Exhibit D Allocated Interests

Unit #	# Votes	% Interest in Common Elements	% Common Expense Liability
——	1	100%	100%
Total	**1**	**100%**	**100%**

Note: The percentage of each Unit's Common Element Interest and Common Expense Liability is allocated by a formula set forth in Section 3.4 of the Declaration

Each Unit shall each have one vote in the Association on a formula of one vote per Unit to permit equality among Units.

DECLAR SMITH FARM .DOC
3/23/2007

Exhibit E Condominium Association Bylaws

VILLAGE AT LITTLE FALLS.DOC
3/23/2007

13

VIL_RESP03802

SECTION 13

URBAN IMPAIRED STREAM SUBMISSIONS

The proposed development is not within the watershed of any urban impaired streams.

14

VIL_RESP03804

SECTION 14

EROSION AND SEDIMENTATION CONTROL

A. Narrative
Please refer to the attached Erosion and Sedimentation Control Plan

B. Implementation Schedule
Please refer to the attached Erosion and Sedimentation Control Plan. Also, refer to the Erosion and Sedimentation Control Plan and Specifications in the attached plan set.

C. Erosion and Sedimentation Control Plan
Please refer to the attached Erosion and Sedimentation Control Plan in Section 14.

D. Details and Specifications
Please refer to the Erosion and Sedimentation Control Plan and Specifications in the attached plan set.

E. Calculations
Please refer to Section 12, for Design Calculations for the Erosion Control Structures

F. Stabilization Plan
Please refer to the attached Erosion and Sedimentation Control Plan. Also, refer to the Erosion and Sedimentation Control Plan and Specifications in the attached plan set.

G. Winter Stabilization Plan
Please refer to the attached Erosion and Sedimentation Control Plan. Also, refer to the Erosion and Sedimentation Control Plan and Specifications in the attached plan set.

H. Third-Party Inspections
Not required.

EROSION CONTROL REPORT

VILLAGE AT LITTLE FALLS

Route 202
Tax Map 38, Parcels 6&7
Windham, Maine

Prepared For:
HRC – Village at Little Falls, LLC
2 Market Street
Portland, Maine 04101

March 2007

Prepared by:
Northeast Civil Solutions, Inc.
153 U.S. Route 1
Scarborough, ME 04074

1.0 INTRODUCTION

The proposed Village at Little Falls development consists of 85 new residential condominium units with associated paved streets, landscaping, driveways, utilities, and stormwater management infrastructure. The project will include two 12-unit apartment buildings, nine duplexes, nine porch style units, 34 townhouse units, and a single-family residence. The 8.03-acre property is located in Windham, Maine at the corner of Route 202 and Depot Street. The property has approximately 370 feet of frontage on the Presumpscot River.

The following soils are present on site:

Cu – Undorthents – Hydrologic Soil Group C
HrB – Hollis Fine Sandy Loam – Hydrologic Soil Group C
Py – Podunk Fine Sandy Loam – Hydrologic Soil Group B
HfD2 – Hartland Very Fine Sandy Loam – Hydrologic Soil Group B
Sn – Scantic Silt Loam – Hydrologic Soil Group D

The soils were classified by the US Soil Conservation Service during a soil survey of Cumberland County.

2.0 STRUCTURAL MEASURES

The following structural measures will be used to control the erosion and sedimentation during and after construction. Please refer to the attached planset for additional erosion control requirements.

Silt Fences: Silt fences will be installed at the downgradient side of all cut and fill locations, in unstabilized drainage ways, and in additional areas where dictated by field conditions. On slopes, silt fencing will be installed along the contour. Silt fences will be installed on all disturbed slopes steeper than 10 horizontal to one vertical. For earth cut slopes, the silt fences will also be installed immediately uphill and also downhill of the cut. Silt fences will be installed immediately below all diversion ditches.

Riprap: Materials for aprons and pipe outlet protection was selected to attenuate the erosive forces of stormwater runoff. Riprap is proposed for steep slopes and for the specific areas shown on the Erosion Control Plan found in the attached planset.

Erosion Control Fabric: Futerra Erosion Control Matting (or an approved equal) will be placed on all grassed swales, and in all areas of permanent or temporary concentrated flows of surface water.

Mulch and Netting: Anchored matting (mulch and netting) shall be installed at the base and along the sides of all proposed or existing grassed swales disturbed by construction activities, on slopes greater than 5%, and all on-site disturbed areas not to be worked within 7 days. During the growing season, all seeded areas shall be mulched using hay or straw that is air-dried, and free of undesirable seeds and coarse materials, at an application rate of 100 pounds per 1,000 square feet. Mulch shall lightly cover at least

90% of the surface. Mulch shall be four (4) inches thick if applied during the non-growing period. This four-inch layer of mulch shall be removed once the dormant period has ended and the growing season has begun. The netting shall be installed such that a firm, continuous contact occurs between the mat and the soil.

Hay Bale Dams: The hay bales will be anchored with hardwood stakes. Hay bale dams are appropriate in areas where the velocities are less than 2 feet/sec and slopes are less than 1%.

Stormwater Diversion: Surface water shall be diverted away from all bare, exposed slopes, and all areas disturbed during construction. The methods for diverting surface water shall not concentrate flow, nor cause damage to existing areas. Diversion ditches shall be seeded or rip-raped to prevent the erosion of soil, and shall be constructed on the uphill side of the disturbed areas.

Dust Control: All vehicle traffic areas and exposed surfaces shall be moistened periodically with adequate water to control dust. Calcium chloride may be used in loose dry granules or flakes fine enough to feed through a spreader at a rate that will keep surfaces moist, but does not cause pollution nor plant damage.

Construction Road: Stone construction road shall be constructed after all silt fencing and other control measures have been installed, and prior to any excavation activities on the site. The construction road is intended to provide a stable vehicle surface, and to limit the tracking of soils off-site on vehicle tires.

Slope Stability: All slopes shall be inspected frequently for signs of failure, slipping, and/or erosion. Any damage shall be repaired immediately. Should recurrent problems develop, filter fabric and a six-inch layer of riprap and /or Futerra erosion control matting shall be installed to stabilize the specific area.

River Bank Restoration: Brush Mattress and Wattling will be used in the restoration of the riverbank after the existing mill building is removed. Two inch thick coconut fiber matting with live willow stakes will be installed in the restoration area. Below the water line, two layers of 12"x12"x36" rocks will be placed along the riverbed for stabilization.

Temporary Coffer Dam: A cofferdam will be constructed in the Presumpscot River to facilitate the bank cleanup and restoration. The dam will be removed after the restoration activities are completed. Please refer to the attached planset for cofferdam specifications and requirements.

Problem Areas: While it is expected that the above measures will limit and control the erosion of soil, and the instability of slopes and vegetation, additional measures may be required. Problem areas shall receive riprap and /or Futerra erosion control matting, as necessary to control erosion.

3.0 TEMPORARY NONSTRUCTURAL MEASURES

All disturbed areas not scheduled for other finishes, including grubbed areas, loam stock piles, temporary banks, etc. will be loamed, seeded, fertilized and mulched in accordance with the following schedule:

Initial disturbance	14 to 30 days
Final grading	15 days

Temporary vegetative cover shall be used where exposed soil surfaces are not to be fine - graded for periods from 30 days to one year. These areas include grubbed areas, soil stockpiles, and temporary road banks, etc. Temporary seeding shall be in accordance with table 1.

The preparation of temporary seedbeds will include the application of two inches of loam (where necessary), and limestone and fertilizer according to soil test recommendations. If soil testing is not feasible on small or variable sites, or where timing is critical, fertilizer shall be applied at the rate of 13.8 pounds per 1,000 square feet of 10-10-10 (N-P205-K20) or equivalent. Apply limestone (equivalent to 50 percent calcium plus magnesium oxide) at a rate of 138 lb. per 1,000 sf. Where the soil has been compacted by construction operations, the soil shall be loosened to a depth of two (2) inches before applying fertilizer, lime and seed. Seed shall be uniformly applied by hand, cyclone seeder, drill, cultipacker-type seeder or hydroseeder (slurry including seed and fertilizer). Hydroseedings, which include mulch, may be left on the soil surface. Seeding rates must be increased by ten percent when hydroseeding.

Seeded areas shall be mulched with hay, straw or shredded or chopped cornstalks (8-12 inch lengths). Hay and straw shall be air-dried and free of undesirable seeds and coarse material. Mulch shall be applied at a rate of 90 -100 bales per acre (100 lbs. per 1,000 sf.), to lightly cover at least 90% of the surface area. Mulch shall be applied immediately following seeding.

Mulch anchoring will be used on 3:1 slopes, disturbed areas within 100 feet of the wetlands, and in concentrated flow areas. Mulch anchoring will be netting, peg and twine, or a spray-on binder. In areas of concentrated flow, netting must be installed to anchor mulch.

Table 1 – Temporary Seeding Rates and Dates

Seed	Lb./Ac.	Lb. Per 1000 S.F.	Seeding Depth	Recommended Seeding Dates	Remarks
Winter Rye	112 (2.0 bu)	2.6	1 – 1.5 in.	8/15 – 10/1	Good for fall seeding. Select a hardy species, such as Aroostock Rye.
Oats	80 (2.5 bu)	1.8	1 – 1.5 in.	4/1 – 7/1 8/15 – 9/15	Best for spring seeding. Early fall seedings will die when winter weather moves in, but mulch will provide protection.
Annual Ryegrass	40	0.9	0.25 in.	4/1 – 7/1	Grows quickly but is of short duration. Use where appearance is important. With mulch, seeding may be done throughout growing season.
Sundangrass	40 (1.0 bu)	0.9	0.5 – 1 in.	5/15 – 8/15	Good growth during hots summer periods.
Perennial	40 (1.0 bu)	0.9	0.25	8/15 – 9/15	Good cover, longer lasting than Annual Ryegrass. Mulching will allow seeding through growing season.
Temporary mulch with or without dormant seeding				10/1 – 4/1	

4.0 PERMANENT NONSTRUCTURAL MEASURES

Permanent grass and legume cover shall be used on all areas of exposed soils not scheduled for other finishes. A minimum of four inches of loam shall be used in all areas to be permanently seeded. Temporary seeding shall not be substituted for permanent seeding.

Limestone and fertilizers shall be applied according to soil test recommendations. If soil testing is not feasible due to critical timing, fertilizer may be applied at the rate of 18.4 pounds per 1,000 sf. using 10-20-20 (N-P205-K20) or equivalent. Agricultural limestone (equivalent to 50% calcium plus magnesium oxide) shall be applied at a rate of 138 pounds per 1,000 sf. Limestone and fertilizer shall be worked into the soil to a depth of four inches with a disk, spring tooth harrow, or other suitable equipment. The final harrowing or discing operation shall be on the general contour and continue until a reasonably fine, uniform, seedbed is prepared. All but clay soils, silty soils, or coarse sands shall be rolled to firm the seedbeds, whenever feasible. All stones two inches or larger in any dimension, debris such as wire, cable, tree roots, pieces of concrete, trash, clods, lumps and all other unsuitable materials shall be removed. If traffic has left the soil compacted, the area must be retilled and firmed as above. The following seed mixture and seeding rates shall be used for all permanently seeded areas.

PERMANENT SEED MIXTURE

Seed shall be uniformly applied by hand, cyclone, drill or cultipacker-type seeder, or hydroseeder (slurry including seed and fertilizer). Hydroseedings which are mulched may be left on the soil surface.

Where feasible, the seedbeds shall be firmed following seeding operations using either a roller or light drag, except where either a cultipacker-type seeder or hydroseeder is used. Seeding operations shall be on the contour. Seeding rates must be increased ten percent when hydroseeding. Spring or fall seedings will be used whenever possible, in accordance with the following schedule:

Spring Seeding	April 1 to May 20
Fall Seeding	August 1 to September 1

Permanent seeding shall be done within 14 days of final grading, but in no case later than September 1, (45 days prior to the first killing frost, which is typically 10/10), of the construction year. All seeded areas that do not have an adequate catch of grass shall be reseeded as needed to guarantee a good quality vegetative cover. Mulching and mulch anchoring shall occur immediately after seeding.

All disturbed areas not reseeded prior to September 1 shall be stabilized for the winter with temporary seed and hydraulically applied mulch and binder, or with a geotextile fabric, prior to October 1.

Dormant seeding may be used after the first killing frost (October 10) and before snowfall. If seeding cannot be done within the seeding dates, mulch shall be used to protect the site to delay seeding until the next recommended seeding period. Midsummer

seeding should be avoided, but is allowable, provided that the seeded area is supplied with sufficient water from daily watering and rain.

One of the following methods will be used to perform a dormant seeding:

a) Prepare the seedbeds, add the required amounts of lime and fertilizer, then mulch and anchor. After the first killing frost and before snowfall, broadcast or hydroseed the selected seed mixture.

b) When soil conditions permit, between the first killing frost and before snowfall, prepare the seedbeds, lime and fertilize, apply the selected seed mixture, and mulch and anchor.

Dormant seedings shall use double the regular seeding rates. Dormant seedings shall be well anchored on slopes, ditch bases and areas of concentrated water flows. The dormant seeding shall be inspected and reseeded as needed in the spring, and remulched in areas where cover is less than 75%, or in bare spots larger than one square foot.

5.0 WINTER CONSTRUCTION

Winter Construction: Construction performed any time between November 1 and April 15 of any year shall be considered "Winter Construction," and shall conform to the following criteria.

Maximum Areas Without Stabilization: Winter excavation and earthwork shall be done such that no more than 1 acre of the site is without stabilization at any one time. Exposed areas shall be limited to the area that can be mulched in one day, prior to any snow event. Continuation of earthwork operations on additional areas shall not begin until the exposed soil surface on the area being worked has been stabilized such that not more than 1 acre of the site is without stabilization or without erosion control protection at any one time.

Stabilization.: An area shall be considered to have been stabilized when exposed surfaces have been either mulched with straw or haw at a rate of 100 LB Per 1,000 sf. (with or without seeding), or dormant seeded, mulched and adequately anchored by an approved anchoring technique. **In all cases, mulch shall be applied such that the soil surface is not visible through the mulch.**

Loam or seed will not be required between the dates of October 15, and April 15. During periods when temperatures are above freezing, exposed slopes shall be fine-graded and protected with mulch, or temporarily seeded and mulched until such time as the final treatment can be applied. After November 1, any loamed, smooth, final graded areas may be dormant seeded at a rate of 200% to 300% higher than specified for permanent seed, and then mulched. If construction continues during freezing temperatures, all exposed areas shall be continuously graded before freezing, and the surface shall be protected temporarily from erosion by the application of mulch. Slopes shall not be left exposed during the winter or any other extended time of work suspension unless treated

in the above manner. Until such time as weather conditions allow ditches to be finished with permanent surface treatment, erosion shall be controlled by the installation of hay bales or stone check dams, in accordance with the standard details.

Mulch Anchoring: Mulch anchoring shall be installed according to the following criteria:

a. Between November 1 and April 15, all mulch shall be anchored by peg line, mulch netting, asphalt emulsion chemical, or track or wood cellulose fiber.

b. Mulch netting shall be used to anchor mulch in all drainage ways with slopes greater than 3% for slopes exposed to direct winds, and for all other slopes greater than 5%.

c. Mulch netting shall be used to anchor mulch in all areas with slopes greater than 5%.

Daily Protection: During the period of October 1 to April 15, all bare and exposed earth shall be treated with a dormant seeding, mulched and anchored at the end of each working day.

Snow Removal: Snow shall be removed prior to the application of seed and mulch.

Limit of Construction: The limit of construction for the site shall be as indicated on the plans. No disturbance of soils, vegetation, or wetlands will be permitted beyond the limit of disturbance, except in the areas of stormwater ditches, culverts, and discharge aprons.

Construction Staging Areas: The construction and staging areas for the site shall be located in within the limit of disturbance. Silt fencing shall be placed all around the perimeter of the staging/storage areas.

Schedule: Construction is scheduled to commence in the fall of 2007, and will begin with the installation of erosion control systems to protect drainage ways and areas outside the construction limits. Silt fencing and ditch protection measures shall be installed prior to any soil disturbance in the contributing drainage area. As soon as control measures are in place, and prior to commencing soil disturbance activities, the construction road shall be installed. It is imperative that disturbances to vegetation be limited only to those areas, which are necessary to accomplish the work.

The fine and very fine sandy loams that will be exposed during site preparation may be susceptible to erosion, and can undergo strength loss when subjected to construction traffic and excavation activities, particularly during periods of precipitation and high ground water levels. Therefore, care will be exercised during construction to minimize disturbance of the bearing soils. All topsoil, organic and loose surface soil will be stripped and stored for reuse later. Should the subgrade become soft or difficult to work and/or wherever subsurface drainage cavities are encountered, the subgrade will be over-excavated as required, and backfilled with granular fill or crushed stone.

6.0 MAINTENANCE

Maintenance functions are extremely important on this site due to erodible nature of the existing soils, and the potential impact to the network of wetlands, should erosion be permitted. All erosion and sedimentation control structures and other measures shall be inspected weekly and after every rainfall event. Any signs of damage shall be repaired/replaced immediately. **IN ADDITION, recurrent problem areas shall be inspected more frequently. Additional measures may be required if those proposed in this plan are not sufficient. Problem areas shall receive riprap and/or Futerra erosion control matting, as necessary to control erosion.** Culvert outfalls that do not have aprons shall be inspected weekly. Riprap shall be placed at the outfall should erosion be noted.

Silt Fences: Silt fences shall be inspected weekly and after each storm event. Sediment deposits should be removed after each storm event. If there are any signs of erosion or sedimentation occurring below the fences, those areas requiring repair shall be attended to immediately, and silt fencing installed below the damaged area. Silt fence shall be removed by the contractor, when the area draining to the silt fence has been permanently stabilized. The remaining sediment deposits shall be raked to conform to existing grade, prepared and seeded.

Hay Bale Dams: Hay bale dams shall also be inspected weekly and after each storm event. Sediment deposits shall be removed when deposit height reaches approximately one-half the height of the hay bale barrier. The hay bale barriers shall remain in place until the areas surrounding the bales have stable, mature, final vegetative cover.

Culvert Protection: Culvert protection shall be inspected weekly and after each storm event. Sediment deposits should be removed after each storm, and if necessary replace screened gravel to insure sediments are trapped in the filter. The culvert protection should remain in place until the area tributary to the inlet of the culvert has established a stable, mature, final vegetative cover.

Mulch and Netting: All mulches must be inspected periodically, and after each storm event. If less than 90% of the soil surface is covered by mulch, additional mulch shall be applied immediately. Netting must be inspected after rainstorms for dislocation and failure. If washouts, breakage, or dislodging occurs, netting shall be repaired, or replaced, as necessary, immediately after repairing damage to the slope.

Dust Control: All vehicle traffic areas, and exposed soil surfaces shall be moistened periodically with adequate water to control dust throughout the period of construction, and until all soils have been covered with final surfaces, or vegetated such that dust will not occur.

Ditch and Slope Protection: Slope and ditch protection areas shall be inspected periodically for damage, and repaired as necessary. If erosion is evidenced, riprap

protection shall be added, as required, to maintain slope stability and to prevent further erosion.

Temporary Seeding: Temporary seeding shall be periodically inspected. At a minimum, 95% of the soil surface should be covered by vegetation. Repairs shall be made and other temporary measures used in the interim (mulch, filter blankets, check dams, etc.).

Permanent Grassed Areas: Permanent grassed areas shall be maintained by liming according to soil test recommendations, or at a minimum, every five years, using a rate of 100 lbs per 1,000 sf. Fertilization shall be in accordance with soil testing, or broadcast biennially at the rate of 7.5 lbs per 1,000sf, of 10-10-10. All seeded areas shall be reseeded as needed in order to maintain an adequate vegetative cover. Where legumes predominate, fertilize according to soil test recommendations, or broadcast every three years at 7.5 lbs per 1,000 sf, of 0-20-20.

Slope Stability: All slopes shall be inspected frequently for signs of failure, slipping, and /or erosion. Any damage shall be repaired immediately. Should recurrent problems develop, filter fabric and a six-inch layer of riprap and/or erosion control matting shall be installed to stabilize the area.

Paved Areas: Paved areas shall be swept every three months during construction, and every six months, thereafter. Sweepings shall be removed from the site.

Coffer Dam: The temporary cofferdam will be installed and inspected per the manufactures recommendations. The dam should be inspected daily to insure stability, monitor water levels, and identify any potential leakage areas. .

Removal of Temporary Measures: All temporary erosion and sedimentation control measures shall be removed by the contractor after all surfaces have been finished and all vegetative cover has matured and stabilized.

The contractor shall be responsible for the implementation and maintenance of all erosion and sedimentation control devices until the project has been accepted by the owner. After that time, maintenance operations shall be the responsibility of owner.

SECTION 15

GROUNDWATER

A. Narrative

1. Location and Maps

The project boundary is shown on the following maps:

- Maine Geological Survey Sand and Gravel Aquifer map in Section 15, Exhibit 1
- Maine Geological Survey Surficial Geology map and report in Section 15, Exhibit 2
- Maine Geological Survey Bedrock Geological map in Section 15, Exhibit 3.

2. Quantity

No ground water will be used in this project. The development will be serviced by public water.

3. Potential Sources of Contamination

The development was designed to have as minimal an impact as possible therefore; no structural measures are required to prevent groundwater degradation.

B. Groundwater protection plan

Due to the residential nature of the development no formal groundwater protection plan has been prepared. There will be no storage of petroleum products, pesticides, herbicides, fertilizer, road salt, solvents, acids or other materials with the potential to contaminate groundwater.

C. Monitoring plan

Not required.

D. Monitoring well installation report

Not required.

Section 15: Exhibit 1
Sand and Gravel Aquifer Map

Gorham Quadrangle, Maine

Compiled by
Craig D. Neil
Preliminary aquifer boundaries mapped by
Geoffrey W. Smith

Digital cartography by:
Robert A. Johnston

Robert G. Marvinney
State Geologist

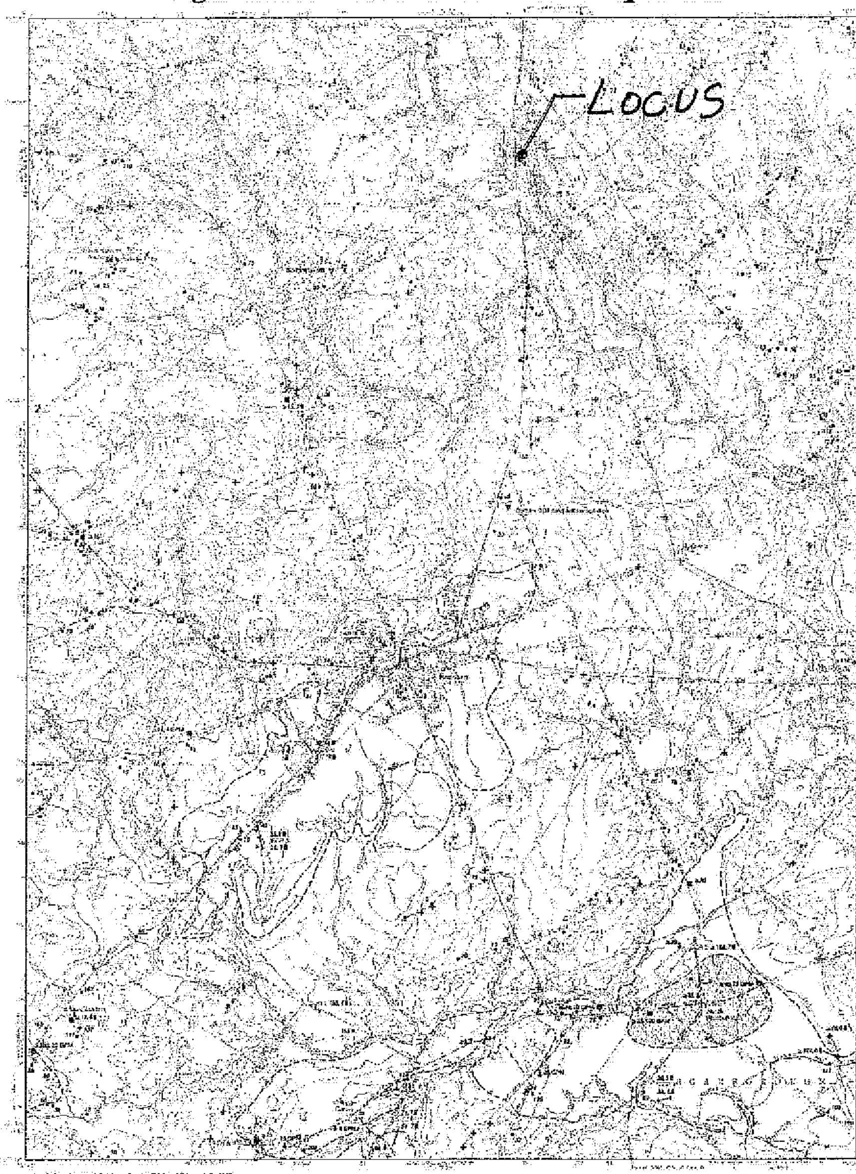
Cartographic design and editing by:
Robert D. Tucker
Bennett J. Wilson, Jr.

Funding for the preparation of this map was provided in part by the Maine Department of Environmental Protection.

Maine Geological Survey

Open-File No. 98-143
1998

Significant Sand and Gravel Aquifers



SCALE 1:24,000

CONTOUR INTERVAL 20 FEET

SIGNIFICANT SAND AND GRAVEL AQUIFERS
(yields greater than 10 gallons per minute)

SURFICIAL DEPOSITS WITH LESS FAVORABLE AQUIFER CHARACTERISTICS
(yields less than 10 gallons per minute)

SEISMIC-LINE INFORMATION

GEOLOGIC AND WELL INFORMATION

OTHER SOURCES OF INFORMATION

Section 15: Exhibit 2
Surficial Geology Map

Gorham Quadrangle, Maine

Surficial geologic mapping by
Geoffrey W. Smith

Digital cartography by
Robert A. Johnston

Robert G. Marvinney
State Geologist

Compilation, design and editing by
Robert B. Tucker

Funding for the preparation of this map was provided in part by the U.S. Geological Survey
Cooperative Geological Mapping (COGEOMAP) Program, Cooperative Agreement No. 1434-95-G01-A8509.

Maine Geological Survey
Address: 22 State House Station, Augusta, Maine 04333
Telephone: 207-287-2801 E-mail: mgs@maine.gov
Home page: http://janus.state.me.us/doc/nrimain.htm

Open-File No. 99-84
1999

For additional information,
see Open-File Report 99-118.

Surficial Geology

LOCUS

SOURCES OF INFORMATION

SCALE 1: 24,000

1 MILE
1 KILOMETER
CONTOUR INTERVAL 20 FEET

TRUE NORTH

Topographic base from USGS 7.5-minute quadrangle, Gorham, dated 1957. Culture revised 1987. Hydrography revised 1987. Boundaries compiled from Maine Geological Survey digital data, 1:24,000.

Surficial geology mapped by Geoffrey W. Smith and Robert A. Johnston during the 1995 field season, funding for this work provided by the U. S. Geological Survey COGEOMAP program. Geologic and hydrologic data sources are listed in Open-File Report 99-118.

Pa — Sheetwash alluvium - Gray to brown fine sand and silt with some gravel. Occupies flood plains along present Presumpscot and Saco rivers. Extent of alluvium based on soil maps of Cumberland and Oxford counties.

Pwd — Wetland, organic - Muck, peat, silt, and sand. Poorly drained areas, often with standing water.

Pa — Alluvium - Coarse to fine alluvial sand in high terraces underlying Presumpscot Formation clays, north and east side of the Presumpscot River.

Pmd — Marine nonglaciomarine deposits - A layer of silt and clay (estimated to be 20 to 40 feet thick) underlies most of the area. Till and bedrock commonly crop out at the surface. Local sand, gravel, and subaqueous outwash occur in the lowest areas. Bedrock, commonly at shallow depth. Average thickness probably less than 5 m. Locally, clast-rich deposits may include marine clay and sand, as well as isolated boulders.

Pmdg — Marine nonglaciomarine deposits - Mixture of unsorted and coarse-grained, well-sorted layers of gray to brown sand. Generally with gradational basal contact with Pg. Thickness between 1 and 5 m. Deposited during regressive phase of marine submergence.

Pg — Presumpscot Formation - Massive to laminated gray and blue-gray (weathering to brown) silt and silty clay. Locally may contain boulders, sand, and gravel. Occurs as shallow deposit over bedrock and older glacial sediments. Underlies thick near-term (less than 1 m to more than 50 m). Deposited during period of deglacial marine submergence.

Peat — Peat - Dominantly well-decomposed plant material; locally contains thin layers of silt.

Pfmd — Fine-grained marine complex - Composed of interbedded equivalents of the Presumpscot and sand-mantled bog. Composed of fine sand and gravel (coarse-grained facies) and silt (fine facies). Thin material overlies outcrops of till mantled bedrock ridges or complexes.

Pdeltd — Sand marine deposits - Coarse gravel, sand, silt, and clay deposited by ice-shallow bedrock. Mapped in areas of shortly uncovered till (McGee) and recessional. Exposed at its seaward front during retreat of more advanced glaciers. Bedrock commonly displays significant deformation. Generally less than 5 m in thickness.

Till — Till - Gray to gray-brown, poorly sorted mixture of silt, sand, pebbles, cobbles, and boulders. Forms a blanket deposit on or bedrock, and is inferred to underlie younger sediments in lowland or covered at surface. Thin to irregular. Lighter thickness in topographic lows. Major source in sand and coarse mountain (Pmds, Pmdd, Acarrague) and lower thickness.

Areas of clast-rich and/or coarse-texture bedrock outcrops - Rock units are distinguished. Individual outcrops are also in the large areas of poor exposure. Bedrock indicates areas where surficial materials are thin (less than 1 to 2 m) and bedrock topography is rough.

Crest of a drumlin - Drumlin is a streamlined hill composed of till and/or bedrock.

Terrace terrace scarp - Thin to discontinuous bluffs.

Marginal ridge - Ridge of till and bedrock mantled with material deposited at the margin of stagnant glacier. Ice indicates ridge crest.

Esker ridge - Flat to linear of sand and gravel ridge deposited in subglacier tunnel between the ice sheet (Pgd). Clasts were indicate the direction of subaerial meltwater flow.

Glacial striation locality - Bar indicates probe of observation. Arrow indicates movement of the Wisconsin. Double indicates subsequent ice flow direction.

Glacially transported bedrock - Indicates area of bedrock has been elongated parallel to the direction of ice flow. The long axis of bedrock crests.

Area of many large boulders

SOURCES OF SURFICIAL GEOLOGY MAPS

A preliminary geologic map sheets of the Gorham 7.5-minute quadrangle, Cumberland County, Maine. Maine Geological Survey, Open-File Report 99-113, 1p.

Smith, G.W., 1995, Surficial materials of the Gorham quadrangle, Maine. Maine Geological Survey, Open-File Map 95-172.

Hall, C.A., 1968, Quaternary geology and geomorphology of the Gorham quadrangle, Maine. Maine Geological Survey, Open-File Map 95-112.

Thompson, W.B., 1979, Surficial geology handbook for coastal Maine. Maine Geological Survey, 68 p. [includes maps].

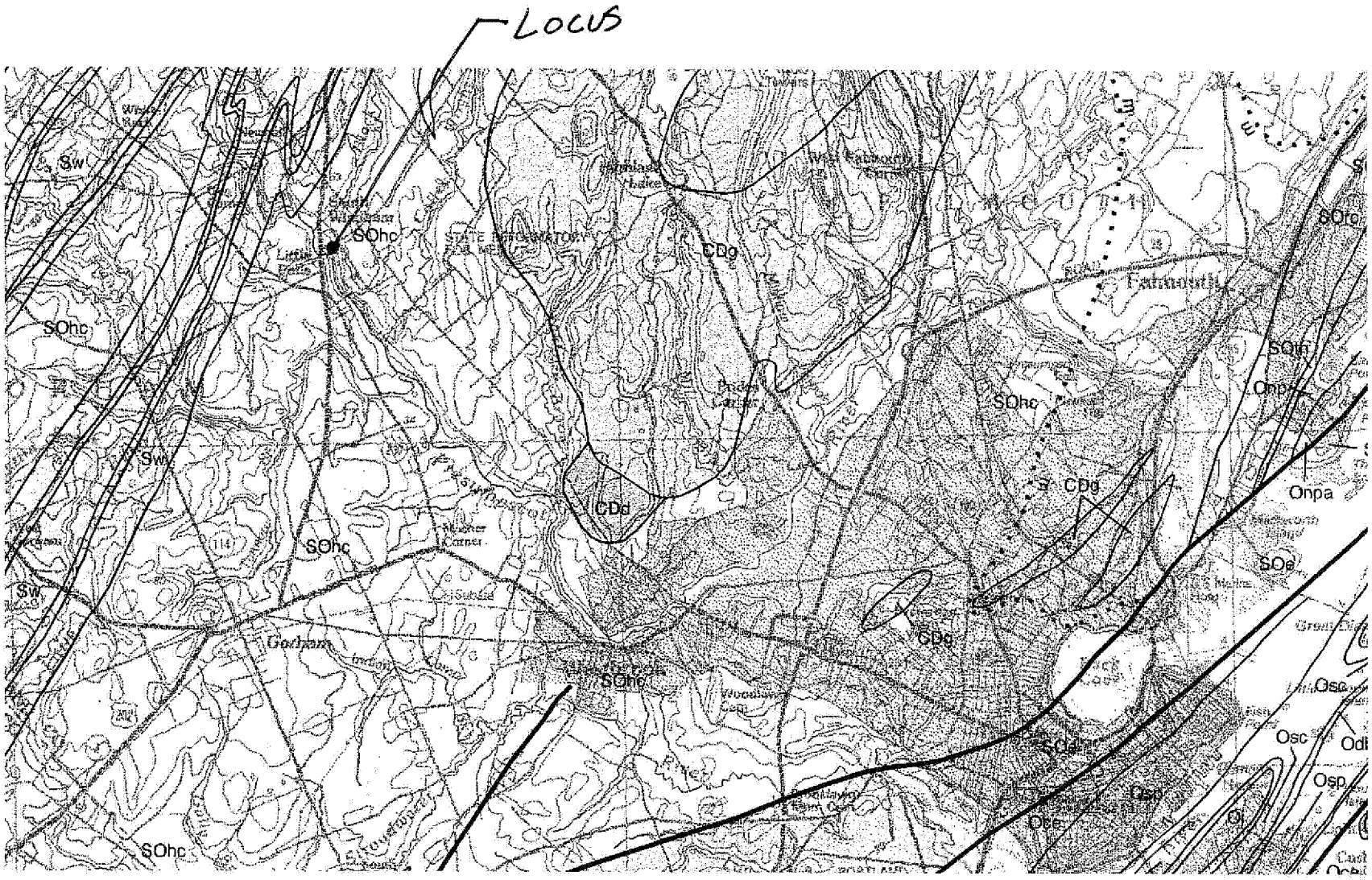
Thompson, W.B., and Borns, H.W., Jr., 1985, Surficial geologic map of Maine. Maine Geological Survey, 1 sheet, 1:500,000.

Thompson, W.B., Cowan, K.J., Borns, H.W., Jr., and Anderson, D.G., 1989, Glacial geology of Maine and sea level salinity in the Pleistocene of coastal and southern Maine. In Anderson, W.A., and Borns, H.W., Jr. (eds.), Neotectonics of Maine. Maine Geological Survey, Bulletin 40, p. 1-67.

OTHER SOURCES OF INFORMATION

1. Smith, G.W., 1995, Surficial geology of the Gorham 7.5-minute quadrangle, Cumberland County, Maine. Maine Geological Survey, Open-File Report 99-113, 1p.
2. Smith, G.W., 1995, Surficial materials of the Gorham quadrangle, Maine. Maine Geological Survey, Open-File Map 95-172.
3. Hall, C.A., 1968, Quaternary geology and geomorphology of the Gorham quadrangle, Maine. Maine Geological Survey, Open-File Map 95-112.
4. Thompson, W.B., 1979, Surficial geology handbook for coastal Maine. Maine Geological Survey, 68 p. [includes maps].
5. Thompson, W.B., and Borns, H.W., Jr., 1985, Surficial geologic map of Maine. Maine Geological Survey, 1 sheet, 1:500,000.
6. Thompson, W.B., Cowan, K.J., Borns, H.W., Jr., and Anderson, D.G., 1989, Glacial geology of Maine and sea level salinity in the Pleistocene of coastal and southern Maine. In Anderson, W.A., and Borns, H.W., Jr. (eds.), Neotectonics of Maine. Maine Geological Survey, Bulletin 40, p. 1-67.

Section 15: Exhibit 3
Bedrock Geological Map



Maine Geological Survey Bedrock Geological Map

VIL_RESP03823

16

VIL_RESP

SECTION 16

WATER SUPPLY

A. Water supply method

The development will be serviced by public water. Attached, please find a letter from the Portland Water District indicating that they have an adequate supply of healthy water to service the proposed development.

B. Subsurface wastewater disposal

The development will also be serviced by public sewer. Please refer to Section 17 for additional information regarding wastewater disposal.

C. Total Usage

Total anticipated water usage by the development based on 90 gallons per day per bedroom is 17,010 GPD. The Water Usage Calculation is attached for your reference.

NORTHEAST CIVIL SOLUTIONS, INC.
Surveying Engineering Land Planning
153 U.S. Route 1, Scarborough, Maine 04074
Tel: 207-883-1000 • Fax: 207-883-1001

PROJECT VIF
SHEET NO. ______ OF ______
CALCULATED BY ______ DATE ______
CHECKED BY ______ DATE ______
SCALE ______

Water/Sewer Flow Rate

90 GPD x (2 Apt Bldgs) x (12 apts) x 2 bdrms 4320

+ 90 GPD x (9 Duplexes) x 2 x (3 bdrms) 4860

+ 90 GPD x Single Family House x 3 bdrms 270

+ 90 GPD x 42 units x 2 bdrms 7560

17,010 GPD

VIL_RESP03826

Portland Water District
FROM SEBAGO LAKE TO CASCO BAY

MAR 1 6 2007

March 16, 2007

Mr. Lee Allen, P.E.
Northeast Civil Solutions
153 U.S. Route One
Scarborough, Maine 04074

RE: Water and Sewer Utility Service for Village at Little Falls, Windham, Maine

Dear Mr. Allen:

I have conservatively estimated that the Village at Little Falls (VLF) will generate water and sewer flows of approximately 19,600 gallons per day on an average daily basis at full development. I am pleased to confirm that there is adequate capacity in the District's water system to supply this need. The District has existing water mains on both Depot Street and Main Street that will be connected through your project streets to provide both domestic and fire-fighting needs. Water pressure in our South Windham mains is approximately 60 to 70 pounds per square inch at normal demand periods and approximately 750 gallons per minute are available for fire fighting. The District's water supply meets all state and federal regulations for water quality.

The situation with sewerage service is different, however. Windham presently owns approximately 20,000 gallons per day of treatment capacity in the District's existing Little Falls Waste Water Treatment facility. Given the existing average Windham wastewater flow of 10,000 gallons per day, you can see that additional capacity will be needed to serve the fully developed VLF project. We estimate that existing treatment capacity exists to serve approximately 50 units of the planned development.

As you know, the Towns of Windham and Gorham have undertaken the construction of additional wastewater handling capacity that is expected to be available by the end of 2007. When complete, Windham will have the ability to convey over 100,000 gallons per day of wastewater to the Westbrook-Gorham interceptor sewerage and treatment system for ultimate treatment and disposal at the Westbrook Regional Wastewater Treatment Facility. Thus, by the end of 2007, the District expects to be able to have adequate wastewater system capacity for the full VLF project with reserves for future growth in Windham.

VIL_RESP03827

225 DOUGLASS STREET · P.O. BOX 3553 · PORTLAND, MAINE 04104-3553
PHONE: 207.774.5961 · FAX: 207.761.8307 · WEB: WWW.PWD.ORG

We look forward to working further with you, the developer and the Town of Windham to refine the water and wastewater systems design within your project. Please contact me if you need anything further.

Yours truly,
Portland Water District

Jay C. Hewett, P.E.
Chief Engineer

Northeast Civil Solutions
INCORPORATED

[illegible]
[illegible]
Maine [illegible]

tel
[illegible]

fax
[illegible]

February 12, 2007

To Whom It May Concern:

RE: Village at Little Falls, LLC

I, Steve Etzel, on behalf of HRC-Village at Little Falls, LLC, authorize Northeast Civil Solutions, Inc. to sign any and all applications, plans, permit requests, and other paperwork in conjunction with obtaining final municipal and state approval for the Village at Little Falls residential development on Route 202 in Windham, Maine.

Steve Etzel, Vice Pres. 2/13/07
Steve Etzel Date

FEB 14 2007

VIL_RESP03829

SECTION 17

WASTEWATER DISPOSAL

A. On-site municipal facility
Not applicable

B. Nitrate-nitrogen impact assessment
Not applicable

C. Off-site Municipal Facility
The total anticipated average daily sewer flow is estimated to 90 GPD per bedroom, for a total of 17,010 GPD. The sewer flow calculation is attached for your reference. The wastewater will be disposed of through the public sewer lines.

A sewer pump station located on the site will augment the proposed wastewater system. This pump station will be owned and operated by the Portland Water District. The new pump station will replace the existing Windham Fire Pump and the Androscoggin Street Pump Station.

The water district is currently upgrading the wastewater disposal system in the South Windham area. After these improvements are completed, the system will have sufficient collection and treatment capacity to service the development. Attached, please find a letter of capacity from the Portland Water District.

Additional information regarding the proposed sewer system is included on the attached Sewer Extension/Addition Reporting Form.

NORTHEAST CIVIL SOLUTIONS, INC.
Surveying Engineering Land Planning
153 U.S. Route 1, Scarborough, Maine 04074
Tel: 207-883-1000 • Fax: 207-883-1001

PROJECT V.I.F
SHEET NO. _____ OF _____
CALCULATED BY _____ DATE _____
CHECKED BY _____ DATE _____
SCALE _____

Water / Sewer Flow Rates

90 GPD x (12 Apt Bldg) x (12 apts) x 2 bdrms	4320
+ 90 GPD x (9 Duplexes) x 2 x (3 bedrms)	4860
+ 90 GPD x Single Fam House x 3 bdrms	270
+ 90 GPD x 42 units x 2 bdrms	7560
	17,010 GPD

VIL_RESP03832

Portland Water District
FROM SEBAGO LAKE TO CASCO BAY

MAR 1 9 2007

March 16, 2007

Mr. Lee Allen, P.E.
Northeast Civil Solutions
153 U.S. Route One
Scarborough, Maine 04074

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225 DOUGLASS STREET P.O. BOX 3553 PORTLAND, MAINE 04104-3553
PHONE: 207.774.5961 FAX: 207.761.8307 WEB: WWW.PWD.ORG

VIL_RESP03833

We look forward to working further with you, the developer and the Town of Windham to refine the water and wastewater systems design within your project. Please contact me if you need anything further.

Yours truly,
Portland Water District

Jay C. Hewett, P.E.
Chief Engineer

Keddy Mill Re-development

Unit type	People per Unit	# Units Planned	Estimated Population	Flow per Capita	Flow, gpd	Peaking Factor	Peak Flow, gpd	Peak Flow, gpm
Single Family	2.8	100	280	70	19,600			
Elderly Family	1.5	25	38	50	1,875			
			318		21,475	6.1	130,000	**90**

Facility Flows

Facility / Inflow Sources	Average Flow, gpd	Population @ 70 gpcd	Peaking Factor	Peak Domestic Flow	Infiltration Allowance	Peak Flow, gpd	Peak Flow, gpm
Keddy Mill P.S.							
Main Street	4,183	60					
High St West	22,755	325					
High Street East	5,070	72					
Keddy Mill Housing	21,475	318					
	53,483	775	5.2	279,000	7,865	286,865	**199**

Peaking Factor = 5.0/P^(1/6) P = Population in thousands
Infiltration Allowance per TR-16 = 500 gpd/inch/mile
Little Falls System serves 600 people with 8044 feet of 8" sewer. This is 13.4 feet per capita, and is used to calculate infiltration allowance.

Maine Department of Environmental Protection
Sewer Extension/Addition Reporting Form

Date of submission: 3·20·2007

As per 38 M.R.S.A. §412.B. name: N/A **of** address: _____ [phone#_____] **is submitting this Preliminary Report to the DEP for their determination whether a sewer extension review is necessary:**

1(a)--The _____ POTW is currently treating a monthly average flow of _____MGD (based on the previous 12 months). Our monthly average flow license limit is _____MGD. We are currently at _____% of our license flow limit.
(b)--Our instantaneous or daily maximum design flow is_____MGD.
2.--There are _____ number of sewer extensions/hookup projects planned for the coming 12 months. These will result in an additional flow totaling _____ gallons. **[fill in appropriate section(s) in #6 below]**
3.--Will any proposed extensions/hookups affect portions of the sewer system with CSO's?___
If yes: Which CSOs will be affected?_____
These CSOs have been active _____ times in the last 12 months.
4(a)--We have had _____ exceedences of our Waste Discharge License in the last 12 months.
(b)--We have had _____ exceedences of our daily maximum design flow limit in the last 24 months.
(c)--Which of these are attributed to excess flow or loading conditions, identify by date and parameter:_____
_____

5. The DEP should contact _____ at Phone # _____for more information on individual sewer projects. (If different from the person submitting this report.)

6. Reporting on individual Sewer extensions/hookups:

#1
Name of project/area served:
Village at Little Falls
Type of Waste Water: Residential X ; Industrial ____ If yes, what type of industry_____; Commercial ____ If yes, type?_____.
Does this project require review and approval under the Department's Site law. Yes
Anticipated Flow and loadings: 17,010 GPD
Linear feet of Sewer 2422 LF ; # of service connections 63 ; # of Pump stations 1
Will this contribute to portions of the sewer system with a CSO(s)? No
Which CSO(s)? _____
If yes, what measures are being taken to insure that this project will not contribute to CSO

VIL_RESP03836

activity: _____

_____

_____

__

If yes, is the discharge permittee on schedule with Department CSO reduction requirements?_____ How many times has this CSO discharged in the past year? _____

Has the POTW acknowledged capacity to transport and treat the increased flow? _____

Were the plans and specifications prepared by a registered professional engineer? YES ; Name: Lee Allen ; PE# 9218

For DEP use: This project has been reviewed and approved by the CSO reduction coordinator :

_____ _____.
Signature Date

This project has been reviewed and approved by the DETA engineer :

_____ _____.
Signature Date

This project has been reviewed and approved by the facility inspector :

_____ _____.
Signature Date

DEP response:

____Review necessary, submit additional information to:_____

____Review not necessary

[DEP staff send copy of this report form back to applicant]

Attach additional sheets for individual projects as necessary.

Maine Department of Environmental Protection
Sewer Extension/Addition Reporting Form

Date of submission: 3-20-2007

As per 38 M.R.S.A. §412.B. name: N/A of address: _____ [
phone#_____] **is submitting this Preliminary Report to the DEP for their determination whether a sewer extension review is necessary:**

1(a)--The _____ POTW is currently treating a monthly average flow of _____MGD (based on the previous 12 months). Our monthly average flow license limit is _____MGD. We are currently at _____% of our license flow limit.
(b)--Our instantaneous or daily maximum design flow is_____MGD.
2.--There are _____ number of sewer extensions/hookup projects planned for the coming 12 months. These will result in an additional flow totaling _____ gallons. **[fill in appropriate section(s) in #6 below]**
3.--Will any proposed extensions/hookups affect portions of the sewer system with CSO's?___
If yes: Which CSOs will be affected?_____
These CSOs have been active _____ times in the last 12 months.
4(a)--We have had _____ exceedences of our Waste Discharge License in the last 12 months.
(b)--We have had _____ exceedences of our daily maximum design flow limit n the last 24 months.
(c)--Which of these are attributed to excess flow or loading conditions, identify by date and parameter:_____
_____

5. The DEP should contact _____ at Phone # _____for more information on individual sewer projects. (If different from the person submitting this report.)

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Name of project/area served:
Village at Little Falls
Type of Waste Water: Residential X ; Industrial ____ If yes, what type of industry_____; Commercial ____ If yes, type?_____.
Does this project require review and approval under the Department's Site law. YES
Anticipated Flow and loadings: 17,010 GPD
Linear feet of Sewer 2422 LF ; # of service connections 63 ; # of Pump stations 1
Will this contribute to portions of the sewer system with a CSO(s)? NO
Which CSO(s)? _____
If yes, what measures are being taken to insure that this project will not contribute to CSO

VIL_RESP03838

activity: _____

_____

_____

_

if yes, is the discharge permittee on schedule with Department CSO reduction requirements?_____ How many times has this CSO discharged in the past year? _____

Has the POTW acknowledged capacity to transport and treat the increased flow? _____

Were the plans and specifications prepared by a registered professional engineer? YES ; Name: Lee Arden ; PE# 9218

For DEP use: This project has been reviewed and approved by the CSO reduction coordinator :

_____ _____.

Signature Date

This project has been reviewed and approved by the DETA engineer :

_____ _____.

Signature Date

This project has been reviewed and approved by the facility inspector :

_____ _____.

Signature Date

DEP response:

____Review necessary, submit additional information to:_____

____Review not necessary

[DEP staff send copy of this report form back to applicant]

Attach additional sheets for individual projects as necessary.

VIL_RESP038-0

SECTION 18

SOLID WASTE

A. **Commercial Solid Waste Facility** – It is estimated that 110 tons of solid household waste will be generated by the development each year. This is based upon a disposal rate of 2600 lbs. per unit per year for 85 units. All solid waste is to be removed by one of the haulers listed below and taken to Region Waste Systems for disposal. One of the following companies will be retained to haul away the solid waste:

1. BBI Waste Industries
2. Pine Tree Waste

All solid waste debris will be hauled to RWS.

B. **Off-Site Disposal of Construction/Demolition Debris** – Approximately 270 tons of construction debris and 650 tons of demolition debris will be generated as a result of this project. All non-wood construction debris will be picked up on site by one of the following licensed haulers:

1. BBI Waste Industries
2. Pine Tree Waste
3. Plan-It Recycling & Transfer Inc.

All construction and demolition debris will be hauled to Plan-It Recycling in Gorham, Maine or Riverside Recycling in Portland, Maine. All construction and demolition debris generated will be disposed of in compliance with the Solid Waste Management Regulations of the State of Maine.

In addition, approximately 750 tons of steel (heavy and light iron) will be generated as a result of the mill demolition. The steel will be sent to New-England Metal Recycling in Portland, Maine.

Approximately 3,000 tons of concrete (brick and block) will be generated by the building demolition. This material will be processed onsite and re-used as fill material.

C. **On-Site Disposal of Wood Waste** – Only a minimal amount of wood waste will be generated from the development. All stumps and grubbings generated will be chipped and disposed of on site, either worked into the soil or used for erosion control, in compliance with the Solid Waste Management Regulations of the State of Maine.

D. **Special or Hazardous Waste** – Previously, this site was used for industrial purposes; therefore a potential for hazardous waste exists. The applicant has received a Voluntary Response Action Program 'VRAP' permit from the Maine Department of Environmental Protection. Any special or hazardous waste encountered on site will be disposed of per the standards and regulations outlined in the permit. A copy of the VRAP permit is attached. After initial site cleanup, no further special or hazardous waste will be generated.

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

ELIAS BALDACCI
GOVERNOR

DAWN R. GALLAGHER
COMMISSIONER

November 9, 2005

FEB 1 4 2007

Village at Little Falls, LLC
c/o Renee Lewis
2 Market Street, 6th Floor
Portland, Maine 04101

Re: Village at Little Falls Property, 7 & 13 Depot Street, South Windham, Maine-Voluntary Response Action Program No Action Assurance Letter

Ms. Lewis:

The Maine Department of Environmental Protection ("Department") has received and reviewed your application to the Department's Voluntary Response Action Program ("VRAP"), along with the environmental site assessment reports submitted by your environmental consultant for the project, Ransom Environmental Consultants, Inc. ("Ransom"). The application was submitted to the Department with the request that Village at Little Falls, LLC and Lumis, Inc., as applicants to the VRAP, receive the protections provided by the VRAP Law.

Based on the information presented in the reports, the Department agrees with the conclusions and recommendations for further actions at the property. The remedial actions include provisions for the excavation and disposal of petroleum and polychlorinated biphenyl ("PCB") contaminated soils, as well as the appropriate encapsulation of some of the PCB contaminated soils as described in the "Voluntary Response Action Plan for Village at Little Falls, LLC, South Windham, Maine", authored by Ransom and dated June 8, 2005.

The Department's concurrence with the proposed actions is conditioned on the prohibition of installation of groundwater extraction wells on the property without the permission of the Department.

Provided that the remedial actions are completed to the satisfaction of the Department, Village at Little Falls, LLC, Lumis, Inc., and their successors and/or assigns will be granted the liability protection provided by 38 M.R.S.A. §343-E(1) for the property located at 7 and 13 Depot Street, identified as Lots 6, 7 and 8 on Windham Tax Map 38, and described in Book 1681, Page 99, and Book 18046, Page 32 of the Cumberland

17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: 764-1507

web site: www.maine.gov/dep

County Registry of Deeds. The Department will take no action against Village at Little Falls, LLC, Lumis, Inc., and those persons identified in 38 M.R.S.A. § 343-E(6).

Once the recommended remedial measures to be implemented at the property are completed, a report demonstrating the successful implementation of the tasks should be forwarded to the VRAP. Upon determining successful conclusion of the remedial tasks, the Department will issue to Village at Little Falls, LLC and Lumis, Inc. a Commissioner's Certificate of Completion.

If you have any questions regarding this letter, please feel free to call me at 207-287-4854.

Sincerely,

Nicholas J. Hodgkins
Division of Remediation
Bureau of Remediation & Waste Management

Pc: D. Todd Coffin, Ransom
Jon Woodard, Maine DEP

VOLUNTARY RESPONSE ACTION PLAN
FOR
VILLAGE AT LITTLE FALLS, LLC
SOUTH WINDHAM, MAINE

Prepared for:

Renee Lewis
2 Market Street, 6th Floor
Portland, Maine 04101

Prepared by:

Ransom Environmental Consultants, Inc.
200 High Street
Portland, Maine 04101
(207) 772-2891

Project No. 046016
June 8, 2005

D. Todd Coffin
Maine Certified Geologist No. 310

TABLE OF CONTENTS

1.0 INTRODUCTION

Ransom Environmental Consultants, Inc. (Ransom) has prepared the enclosed Voluntary Response Action Plan (VRAP) for review by the Maine Department of Environmental Protection (MDEP). The owner of the property, Village at Little Falls, LLC (VLF), seeks a "No-Action Assurance" letter from MDEP. Ransom understands that once clean-up measures proposed herein have been completed, MDEP will review clean-up documentation and issue a "Certificate of Completion" provided it concurs that the VRAP has been fully implemented.

The VLF property is comprised of two contiguous parcels of land located at 7 and 13 Depot Street in South Windham, Maine (Figure 1). 7 Depot Street is the former location of the Keddy Steel Mill. 13 Depot Street is the former location of the Energy Depot Company. Site development plans include demolition and removal of the former mill building and construction of residential units across the site.

In late 2004, VLF submitted to MDEP a VRAP application, application fees, and previous site investigation reports. The prior reports included:

1. Environmental Site Assessment, Phase I & II, Former Steel Mill Property, Route 202 and Depot Street ,Windham, Maine, by S.W. Cole Engineering, Inc., November 17, 1997.

2. Phase I Limited Environmental Assessment, Lot 7 of Map 38, Windham Township, South Windham, Cumberland County, Maine, by Consla Geotechnical Engineering, March 18, 1993.

3. Report on Supplemental Site Investigation, 7 Depot Street, Windham, Maine by Jacques Whitford Company, Inc., March 9, 2004.

4. Phase I and II, Environmental Site Assessments, Former Depot Energy Company 13 Depot Street, Windham, Maine, by Jacques Whitford Company, Inc., June 14, 2004.

Following review of these reports by MDEP, VLF, Ransom and Nick Hodgkins with MDEP met on August 27, 2004 to discuss clean-up requirements for the site. Key findings from this meeting are detailed below.

7 Depot Street

- MDEP has classified the entire site (7 and 13 Depot Street) as a "stringent" site; however, given specific onsite conditions and contaminant characteristics, clean-up will not be performed to the prescriptive criteria of a stringent clean-up, but will be modified to less-stringent criteria that is appropriate for the site.

- MDEP has requested that oily soils excavated during site development activities be transported off-site for proper disposal or reclamation (*e.g.*, asphalt batching). The "Baseline 2" standard would apply to heavy oils, such as motor oil or heating oils heavier than No. 2. Although not identified at the 7 Depot Street site, any spill of light oils, such as gasoline, would fall under MDEP "Intermediate" clean-up guideline.

- The investigation and remediation of PCBs at the site will require review by MDEP and the US Environmental Protection Agency (EPA) under the Toxic Substances Control Act (TSCA).

- The PCB mitigation will target source areas in site soils. Removal and/or stabilization of PCBs in source areas will be protective of human health and substantially reduce the potential for impacts to the nearby river. VLF will not be responsible for any testing or clean up associated with potential historic impacts to the river. Such impacts, if present, will be addressed by MDEP in the context of its ongoing regional and state water quality assessment programs.

13 Depot Street

- Gasoline-impacted soils will require remediation to the MDEP "Intermediate" guideline (5 mg/kg – lab result). Mr. Hodgkins noted that a reading of 50 ppm using a photoionization detector is often a reasonable target for identifying, in the field, soils that meet (or are close to meeting) the 5 mg/kg criteria. PID readings will guide proposed soil removal activities.

- Soils visibly impacted by motor oil or other petroleum products (such as surface stains under or near auto transmissions and other equipment) would require removal and off-site disposal or reclamation.

2.0 SITE BACKGROUND

2.1 7 Depot Street

2.1.1 Site Description

The site consists of a former steel mill located on 7 Depot Road in South Windham, Maine (refer to Figure 1). The approximately 6.5 acre parcel is bordered by Depot Street to the North, Maine Central Railroad tracks to the east, the Presumpscot River to the South and Route 202 to the West. The site was reportedly first developed for industrial use in the 1700s, and over the years uses included a saw mill, grist mill, manufactured wood board mill and the steel mill whose remnants presently occupy the site.

The site is presently occupied by a former mill building constructed primarily of concrete and brick. The majority of the building consists of two levels, including a basement that is partially below grade. According to S.W. Cole, the building included a boiler house,

forge shop, press building, melt building and offices. The forge shop and boiler house have been razed.

Public water and sewer are available to the site area. Portland Water District records for South Windham indicate that a number of residences generally east of the site have water supply wells. The closest wells to the site include the Boulanger, Georgatos and Reed residences, located about 500 to 1,000 feet to the northeast. Site topography indicates these residences are located at an elevation 20 to 40 feet higher than the site.

2.1.2 Prior Subsurface Investigations

S.W. Cole

Subsurface investigations by S. W. Cole in 1995 and 1996 included completion of twenty-four test pits targeting former storage tanks and other areas of potential concern. Soil samples were screened for volatile organic compounds with a photoionization detector (PID) and six soil samples were tested in a laboratory either for fuel oil, pesticides, PCBs, or heavy metals.

S. W. Cole identified heavy oil-impacted soil at the northern end of the site near Depot Street. The impacted soil was located in the vicinity of a two former above-ground heavy oil storage tanks (now removed). S. W. Cole removed approximately 11 tons of soil impacted by the heavy oil. The MDEP assigned a "Baseline-2" clean-up goal for the site. This goal includes removal of soils with fuel oil concentrations of 200 to 400 parts per million (ppm) based on field screening instrumentation. The Baseline-2 goal is generally applicable to sites in downtown urban areas or commercial strips where groundwater is not likely to be used in the future.

S. W. Cole's 1997 report indicated that the MDEP Baseline 2 goal was met following impacted soils removal. S. W. Cole further reported that "field headspace testing of soil samples from test pits adjacent to known and reported locations of the eleven storage tanks indicated non-detectable levels of ionizable organic compounds." S. W. Cole reported that six of the eleven fuel storage tanks remained at the site at the time of their investigation. The six tanks, formerly located in the boiler house, have since been removed and no subsurface impacts were reported.

Laboratory testing of soils by S. W. Cole detected no volatile organic compounds, and copper was the only heavy metal detected at concentrations higher than naturally-occurring soils. Laboratory testing of oil-impacted soil removed from the site identified no semi-volatile organic compounds using the toxicity characteristic leaching procedure (TCLP).

Jacques Whitford

In August, 2003, Jacques Whitford completed supplemental investigations including twelve test pits, six hand augers and twenty-three surface soil samples at the 7 Depot

Street site to evaluate areas of potential concern identified during previous site investigations. These areas included:

- Two former above ground fuel storage tanks (15,000 and 10,000 gallon capacity) near the railroad tracks on the east side of the site where oil-stained soils were observed during a previous site investigation;
- Two 1,000 gallon underground wastewater tanks adjacent to the north wall of the facility;
- Former 3,000 gallon above-ground fuel tank located at the end of a rail spur on the east side of the site;
- Transformer pad/electrical substation on the south side of the site;
- Former drum storage area at the south end of the former mill building;
- Former garage at the south end of the site; and
- Two floor drains on the ground floor of the main mill building.

Test Pits

On August 4, 2003, twelve test pits (TP-101 to TP-112) were advanced to evaluate areas of potential concern (refer to Jacques Whitford Figure 2, Appendix A). The rationale for each is listed below.

Sample ID	Location/Rationale
TP101	Adjacent to former wastewater holding tanks
TP102	In area of stressed/sparse vegetation during site walk on June 27, 2003
TP103	In area of stressed/sparse vegetation during site walk on June 27, 2003
TP104	Former No. 6 oil spill clean up area
TP105	Former No. 6 oil spill clean-up area
TP106	Former 250K gallon above ground fuel oil tank
TP107	Downslope from former Depot Energy Company
TP108	Downslope from former Depot Energy Company
TP109	Adjacent to former 15K gallon above ground fuel oil tank
TP110	Adjacent to former 10K gallon above ground fuel oil tank
TP111	Former outside drum storage area
TP112	River side of former garage

Jacques Whitford observed the test pitting, screened the soil with a PID, collected soil samples for laboratory analysis, and recorded observations pertaining to the physical characteristics of the soil on test pit logs.

Hand Augers

On August 5, 2003, Jacques Whitford advanced borings at six locations with a hand auger (HA-1 to HA-6 on Figure 2, Appendix A). These borings were advanced to auger refusal on cobbles which varied from 0.5 to 1.5 feet below ground surface.

Sample ID	Location/Rationale
HA-1	Adjacent to outside transformer pad
HA-2	Adjacent to outside transformer pad
HA-3	Along exterior building wall, adjacent to interior floor drain in building basement
HA-4	Apparent oil-stained surface soils (2 ft x 5 ft)
HA-5	From floor drain on basement level of building
HA-6	In area of apparent oil-stained surface soils (3 ft x 6 ft)

Surface Soil Samples

Based on test data collected for the site during the test pit and hand auger programs, Jacques Whitford collected surface soil samples from inside and outside the former mill building for polychlorinated biphenyls (PCB) testing. One sample (SS105) was tested for metals. The sample locations are labeled SS1-SS15 and SS101-SS108 on Figure 2.

Sample ID	**Location/Rationale**
SS1	South of floor "cut out" along north building wall; PCBs identified in drain
SS2	North of floor "cut out" along north building wall
SS3	East of floor "cut out" along north building wall
SS5	Floor "cut out" along north building wall
SS6	Floor drain along south building wall
SS7	Soil from concrete floor south of maintenance shop
SS8/SS9	Soil from concrete floor in maintenance shop
SS10	Soil from concrete floor near former transformer
SS11	East of stained soil outside building; PCBs identified in stained soils
SS12	South of stained soil outside building
SS13	West of stained soil outside building
SS14	Stained soils outside building (0-0.5 ft)
SS15	Stained soils outside building (0.5-1 ft)
SS101	Floor drain along south building wall
SS102	Soil on concrete floor on basement level
SS103	Soil on concrete floor on basement level
SS104	Soil on concrete floor on basement level
SS105	Soil from outside south wall, adjacent to interior drain (metals testing)
SS106	Soil from outside south wall, adjacent to interior drain (PCB testing)
SS107	Soil from outside south wall, down slope from interior drain
SS108	Soil from outside south wall, down slope from interior drain

Jacques Whitford collected samples HA-5 and SS-5 from the center of an approximately 1-ft x 1ft square cut out in the concrete floor of the former mill building. Jacques Whitford collected samples SS1, SS2, and SS3 by coring through the concrete floor in the vicinity of the "cut out." SS4, proposed for the west side of the "cut out," could not be completed due to an obstruction.

Jacques Whitford collected samples SS6 and SS101 from a floor drain along the south wall of the building. The drain was about 1.5 ft x 1.5 ft square and contained water at a depth of about 2 ft below the floor level. Soil samples SS106, SS107 and SS108 were collected outside the building, adjacent to the floor drain. Hand excavation along the building wall did not identify a discharge pipe from the drain. Jacques Whitford indicated that the drain may have an open bottom or sides under the building floor, with no point discharge.

Surface samples SS7, SS8/ SS9 (duplicate of SS8), SS10, SS102, SS103, and SS104 were composed of soil-like material that had accumulated on the building's concrete floor. SS7, SS8/SS9 and SS10 were collected from the second floor of the building; the others were collected from the basement/ground level. Sample locations were selected based on proximity to oil stains, maintenance activities and former electrical equipment, such as transformers. Oil stained concrete and wood was also observed inside the building; these materials have not been sampled to date.

Chemical Testing

Selected soil samples were tested for VOCs (EPA Method 8260-B), diesel-range organics (DRO), the eight RCRA metals, and PCBs. Samples were selected based on field PID readings, visual indications possible impact, and position at or near the water table. Sample numbers, dates, depths and analytical results are summarized on the data table prepared by Jacques Whitford in Appendix A.

Jacques Whitford tested soils from TP-101, TP-104, TP-107, TP-111 and HA-6 for DRO and VOCs. DRO concentrations ranged from approximately 9 mg/kg (TP-104) to 9,100 mg/kg (HA-6). DRO fingerprinting indicated the presence of heavy oil, such as motor oil, in the samples tested. Lighter oils, such as gasoline, diesel or #2 fuel oil, were not identified. This finding is consistent with the results of VOC testing where no constituents of lighter oils were identified, such as benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl-tertiary butyl ether (MTBE). Methylene chloride and trichlorofluoromethane were detected in each of the samples and are suspected to be the result of cross contamination in the laboratory.

Soil samples from TP-102, TP-103, TP-107, TP-110, TP-112, SS-101 and SS105 were sampled for the eight RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver). With the exception of arsenic, the metals concentrations were below the DEP Remedial Action Guidelines (RAG) for residential settings. Arsenic was detected slightly above the RAG of 10 mg/kg at TP-102 (16 mg/kg), TP-103 (11 mg/kg), TP-110 (16 mg/kg), TP-112 (22 mg/kg), SS101 (17.5 mg/kg) and SS105 (13.6 mg/kg).

PCB Results for Former Transformer Pad: Relatively low concentrations of PCBs were detected in surface soils adjacent to the former transformer pad. Total PCB concentrations ranged from 0.119 mg/kg (parts per million – ppm) at HA-1 to 0.056 ppm at HA-2 (Figure 2).

PCB Results for Stained Surface Soils along South Building Wall: Jacques Whitford detected 2.8 ppm total PCBs in surface soils sampled from apparent oil-stained soils along the south building wall (SS14). The PCBs detected included Aroclor 1016, 1242, 1254, and 1260.

Surface soil samples collected at SS11, 10 feet to the east of SS14, were non-detect for PCBs. Likewise, surface soils collected at SS12, 10 feet to the south of SS14, were non-detect for PCBs. Surface sample SS13, 10 feet west of SS14, contained total PCBs of 0.135 ppm. The testing indicates limited aerial extent of PCB impacts at SS14.

PCB concentrations appear to decrease with depth at this location given detection of 2.8 ppm total PCBs in surface sample SS14 (0-0.5 ft), 1.8 ppm in sample SS15 (0.5-1 ft), and 0.63 ppm detected in HA-4 (1-2 ft); each of these samples were co-located.

PCB Results for Floor "Cut Out" along North Wall of Basement: Jacques Whitford detected 77 ppm total PCBs in surface soils sampled from the cut out in the concrete floor of the building basement (SS5). PCBs detected included Aroclor 1254 and 1260.

Soils sampled beneath concrete flooring at SS1, 10 feet south of SS5 contained 0.09 ppm total PCBs. Soils beneath the concrete floor at SS2, 5 feet north of SS5, contained 0.817 ppm total PCBs. Soils beneath concrete at SS3, 10 feet east of SS5, contained non-detectable PCB concentrations.

Test data indicate decreasing PCB concentrations with depth at the concrete floor "cut out." The surface soil sample SS5 (0-0.5 ft) contained 77 ppm total PCBs, while HA-5 (0.5 to 1 ft depth) contained 36 ppm total PCBs.

PCB Results for Floor Drain and Exterior Soils along South Wall of Basement: Total PCBs at 173 ppm (Aroclor 1254) were detected in sediments collected from a floor drain located along the south wall of the building basement (SS6). Confirmatory sampling from the same drain indicated 262 ppm PCBs (SS101) and 570 ppm PCBs (SS101 duplicate).

Soils sampled from a depth of 1.5 feet outside the building and adjacent to the interior floor drain (SS106) contained 113 ppm PCBs (Aroclor 1254). SS107, located about 10 feet west of SS106 (toward the river), contained 120 ppm Aroclor 1254; the sample depth was about 1 1/2 feet. SS108, located about 11 feet west of SS107, contained 9.3 ppm Aroclor 1254; the sample depth was about 1 foot.

PCB Results for Soil Build-up on Interior Concrete Floors: Material sampled from the surface of the concrete floor inside the building contained total PCBs ranging from 11 ppm (SS8) to 138 ppm (SS103). The PCBs detected included Aroclor 1254 and 1260.

Ransom Environmental

Ransom tested three background samples for arsenic on November 8, 2004. Surface soil samples were collected from the Windham Historical Society grounds, the US Postal Service Training Center and the South Windham Fire Department property. The concentrations of arsenic detected were 28.3, 5.1 and 24.1 mg/kg, respectively. These concentrations are similar to those detected at the 7 Depot Street site, and indicate the arsenic is naturally occurring.

2.2 13 Depot Street

2.2.1 Site Description

The 13 Depot Streets site is located on the southern side of Depot Street adjacent to Maine Central Railroad tracks, approximately 300 feet west of High Street. The site is designated by the Windham Assessor's Office as Map 38, Lot 6 and is approximately 40,850 square feet. The site is improved with a one-and-a-half story, wood frame garage, a one-and-a-half story wood frame former railroad station, a one-story wood-frame apartment and storage building, two steel railroad box cars with wood floors, one 10,000-gallon railroad tank car, and an in-ground scale. The site is served by public sewer and water. A site plan is shown on Figure 3.

The garage is constructed on a concrete slab and contains one floor drain and an above ground 275-gallon furnace oil tank. The former railroad station sits on a concrete slab with no basement and is used as storage for automobile transmissions and other automobile parts. The apartment and storage building contains an above ground 275-gallon furnace oil tank and numerous automotive parts and supplies. The two steel-walled, wooden-floor, railroad boxcars are used for storage for automotive engines, transmissions, and other miscellaneous materials.

The 10,000-gallon tank car was installed in 1983 between the former depot station and the southern railroad boxcar on the western edge of the site. It is constructed on a steel frame with a concrete foundation and it is used to store #2 fuel oil. The tank is surrounded on all sides by an earthen berm. The 240 square-foot concrete scale is located adjacent to the warehouse on the western side and apparently is drained via a discharge pipe that discharges into the drainage ditch at the southeastern border of the Subject Site.

A drainage ditch is located adjacent to the southern and western boundaries of the property. A PVC pipe discharges to the drainage ditch and is reportedly connected to the subsurface area near the in-ground scale west of the warehouse.

2.2.2 *Prior Subsurface Investigations*

Acadia Environmental

Acadia Environmental Technology (Acadia) of Portland, Maine prepared an underground storage tank (UST) Site Assessment Report in November 1993 for Merrill and Camilla Laskey, the former owners of the 13 Depot Street site. The report addressed a 500-gallon UST removed from the site on October 28, 1993.

The tank was installed in 1988 and was located as indicated on Figure 2. Upon removal, the UST showed light pitting on one end. The condition of the underground piping was reported to be excellent. A gasoline pump was enclosed directly above the tank in a small shed. Acadia reported a PID jar headspace result of 591 ppm in "black, wet, coal, organic, clay" approximately 3 feet below ground surface from the north end of the tank grave. All other PID readings were less than 100. A laboratory sample yielded 77 mg/kg by MDEP Method 4.2.3 for gasoline. During the tank removal, Acadia contacted Jon Woodard of the MDEP and was instructed to collect the laboratory sample, backfill the excavation and report the results. MDEP required no further action.

Jacques Whitford

Based on the findings of a Phase I environmental assessment of the 13 Depot Street Site, Jacques Whitford conducted Phase II fieldwork at the site between May 7 and 12, 2004. The fieldwork included excavation of test pits and soil sampling for PID screening and laboratory analysis.

Test Pits and Soil Sampling

On May 7, 2004, Jacques Whitford excavated ten test pits at the locations depicted on Figure 3. Test pits were terminated at bedrock refusal between 1.8 and 10 feet below ground surface (bgs). At each test pit location, Jacques Whitford, collected bag headspace samples at 2-foot intervals. Each soil sample was screened in the field for VOC content using a PID. Jacques Whitford also collected bag headspace samples at five surface sampling locations (HS-1 to HS-5) for PID testing.

Based on PID readings and location, Jacques Whitford chose three of the sample intervals for chemical testing for GRO and/VOCs. Jacques Whitford submitted the sample from TP-4 (2-4 feet below ground surface), for testing of GRO and VOCs; this sample had the highest PID reading at the site (>1000 ppm). Jacques Whitford also conducted VOC testing on soils with the highest PID reading from TP-2, located adjacent to a boxcar, and from TP-3, located in an apparent oil stained area in the gravel parking lot.

Jacques Whitford collected samples SS-1, SS-2, and SS-3 for PCB testing. These three samples were from areas of surface soil staining near stored transmission parts (SS-1), an aboveground hydraulic lift (SS-2), and from sediment in the floor drain in the garage (SS-3).

Two surface soil samples (SS-4 and SS-5) were collected for testing of the eight RCRA metals. These soils were sampled from areas of visible surface oil staining.

PID Screening and Chemical Test Results

PID readings varied from 7 to over 1,000 ppm. The only readings over 100 ppm were in TP-2, TP-3, and TP-4. Readings >1000 ppm were observed from 2-6 feet below ground surface in TP-4. The PID readings in TP-4 decreased with depth below the 4-6 feet depth interval. TP-4 is located in a downhill direction from the removed gasoline UST at the site.

Laboratory test results for soils sampled at the 13 Depot Street site are summarized below. The results indicate gasoline-impacted soils in test pit TP-4, located downslope from a former underground gasoline tank. The only other VOC detected in the soils was acetone, a likely laboratory contaminant. PCBs were not detected in the surface soil samples (SS-1, SS-2 and SS-3).

Analyte	**Units**	**TP-3, 2-4**	**TP-4, 2-4**	**SS-4**	**SS-5**
Acetone	ug/kg	197	<23,400	NA	NA
n-Butylbenzene	ug/kg	<7.1	2,570	NA	NA
Ethylbenzene	ug/kg	<7.1	5,440	NA	NA
4-Isopropyltoluene	ug/kg	<7.1	2,100	NA	NA
Naphthalene	ug/kg	<7.1	16,700	NA	NA
n-Propylbenzene	ug/kg	<7.1	3,340	NA	NA
Toluene	ug/kg	<7.1	4,320	NA	NA
1,2,4-Trimethylbenzene	ug/kg	<7.1	50,900	NA	NA
1,3,5-Trimethylbenzene	ug/kg	<7.1	24,400	NA	NA
m,p-Xylene	ug/kg	<14.2	26,400	NA	NA
o-Xylene	ug/kg	<7.1	2,990	NA	NA
Gasoline Range Organics	mg/kg	NA	837	NA	NA
Arsenic	mg/kg	NA	NA	12.8	15.6
Barium	mg/kg	NA	NA	47.4	24.1
Chromium	mg/kg	NA	NA	15.4	17.6
Lead	mg/kg	NA	NA	34.5	49.5

NA denotes not analyzed

With the exception of arsenic, the metals concentrations were below the MDEP Remedial Action Guidelines (RAG) for residential settings. Arsenic was detected slightly above the

RAG of 10 mg/kg in soil samples SS-4 and SS-5. Based on background soils sampling by Ransom, the arsenic appears to be naturally occurring.

3.0 RESPONSE ACTION PLAN

3.1 7 Depot Street

3.1.1 Petroleum-Impacted Soils

Given the industrial history of the site and availability of public water supply to the site area, MDEP has requested implementation of Baseline-2 soil clean-up guidelines for any impacts from heavy oil products (*e.g.*, bunker oil, motor oil). For soils impacted by light petroleum products, such as gasoline, MDEP has requested implementation of intermediate clean-up guidelines for soils. The clean-up requirements for each are:

> Baseline-2: removal free product and remove or remediate contaminated soil to: 500 to 1,000 ppm gasoline range organics and 200 to 400 ppm diesel range organics, each as measured by field headspace analysis.
>
> Intermediate: remove or remediate contaminated soil containing greater than 10 mg/kg diesel range organics, or 5 mg/kg gasoline range organics as determined by a DEP-approved laboratory method.

Prior work at the 7 Depot Street site by S.W. Cole involved investigation and clean-up of soils impacted by No. 6 fuel oil. Soils testing following excavation of impacted soils confirmed that the Baseline-2 standard was met.

Investigations by Jacques Whitford and subsequent review of all prior site investigation reports by Ransom indicated the Baseline-2 standard has been met for the areas sampled, including oil-stained surface soils. The maximum PID reading identified by Jacques Whitford during their investigations in 2004 was 8.5 ppm. Chemical testing of stained soils indicated that the oil was a heavy-end product, such as motor oil.

Soils impacted by light petroleum products, such as gasoline, have not been identified at the 7 Depot Street site. Excavation contractors working at the site will be instructed to contact Ransom should soils with petroleum odors or other evidence of contamination be encountered. In such cases, Ransom will conduct a site visit and perform sampling of impacted media to determine the appropriate course of action. MDEP will be notified if unanticipated subsurface contamination is encountered.

3.1.2 PCB-Impacted Soils

Soils from the floor drain and the concrete cut-out in the building basement, and areas sampled outside the mill building contained PCBs at concentrations ranging from <32 to 570 ppm. The PCBs were likely released from maintenance and handling of former transformers and other electrical equipment used at the site. Given the age of the mill

building, it is possible the transformers and electrical equipment were in use prior to 1978. Since the concentrations of PCBs identified in site soils are ≥50 ppm, the impacted materials are defined by EPA under 40 CFR 761.61 as "PCB Remediation Wastes."

Site development includes the demolition and removal of the former mill building, followed by construction of residential units (refer to Figure 4). Based on EPA criteria under 40 CFR 761.61, the areas of subsurface soil impact (labeled "Area A" and "Area B" on Figures 2, 4 and 5) are categorized as follows.

Area A: Area of PCB-impacted soils located beneath or on the periphery of a proposed paved site access drive. This area meets EPA criteria for a "Low Occupancy Area" in that it constitutes an "unoccupied area outside a building" and is a location where "occupancy is transitory" (40 CFR 761.61). More specifically, a Low Occupancy Area is an area where occupancy for individuals not wearing dermal and respiratory protection is less than 335 hours per calendar year (an average of 6.7 hours per week).

In accordance with 40 CFR 761.61, the clean-up level for PCB-impacted soils in Low Occupancy Areas is ≤25 ppm, or ≤100 ppm if a soil cap is installed.

Area B: Area of PCB-impacted soils located beneath landscaping and lawn of residential units. This area potentially meets EPA criteria for a "High Occupancy Area" in that it constitutes an area where occupancy for individuals not wearing dermal and respiratory protection is 335 hours or more (an overage of more than 6.7 hours per week).

Clean-up levels for PCB-impacted soils in High Occupancy Areas is ≤1 ppm or ≤10 ppm with a soil cap.

Additional Testing

Ransom will conduct additional testing to delineate PCB-impacted soils following demolition and removal of the former mill building. In accordance with the EPA self-implementing pre-cleanup sampling approach as provided in §761.61 Subpart N, sampling will utilize a 3-meter grid centered around the floor drain on the basement level of the former mill building. Proposed sample locations are labeled B1 through B12 on Figure 5.

Soils will be sampled continuously over 2-foot intervals using direct-push drilling; each hole will be advanced to a depth of 6 to 8 feet. Soils will be composited from each 2-foot sample interval, yielding three to four samples from each boring for laboratory testing of PCBs. Soils will be tested for PCBs in the laboratory in accordance with EPA Method SW-846.

NRPA Permitting

Given anticipated soil excavation within 75 feet of the Presumpscot River, the project will fall under the Natural Resources Protection Act (NRPA). The project team will

request a site visit by MDEP's Land and Water Quality Bureau to identify specific requirements under NRPA and the Army Corps of Engineers. The Windham Code Enforcement Office will also be contacted relative to possible requirements under Municipal Shoreland Zoning rules.

Soil Removal and Disposal

Prior to soil removal, notice will be provided to the EPA Regional Administrator (at least 30 days prior to clean-up) and a PCB clean-up plan will be prepared for review and approval by EPA as required under 40 CFR 761.61. The plan will include, as required, schedule, disposal technology and approach.

Area A: Following demolition and removal of the former mill building, PCB-impacted soils ≥25 ppm will be targeted for removal in Area A by a hazardous waste contractor based on the findings of the additional soil testing. Following soil removal and backfilling to proposed site grades, a soil cap and shore stabilization (*e.g.*, rip-rap) will be installed in accordance with 40 CFR 761.61. The cap and shore stabilization will assist in stabilizing surface soils, reduce infiltration into the subsurface and substantially reduce the potential for exposure to PCB-impacted soils not excavated.

The PCB clean-up target of 25 ppm is more stringent than the 100 ppm threshold allowed by EPA in Low Occupancy Areas with the installation of a soil cap. Based on soil test data obtained for the site to date, it is anticipated the 25 ppm target can be reached with reasonable effort. Should shallow groundwater or proximity to the river inhibit reaching the 25 ppm goal, a secondary goal of 100 ppm will be implemented as allowed by EPA with installation of a soil cap.

Area B: Following demolition and removal of the former mill building, PCB-impacted soils ≥1 ppm will be targeted for removal in Area B by a hazardous waste contractor. Prior explorations in this area indicate that a relatively small volume (<20 cubic yards) will require excavation for PCB impacts.

The excavation work in areas A and B will be performed using an excavator and excavated soils will be transferred directly to trucks or roll-off containers lined with polyethylene sheeting for subsequent transport to the disposal facility. Tarps will be used to cover loads prior to transport. Following appropriate waste characterization and coordination with an appropriate disposal facility, the excavated soil will be disposed of in accordance with §761.61(a)(6)(v).

TSCA-regulated remediation waste (≥50 ppm PCBs) will be disposed of at the CWM Chemical Services, LLC facility located in Model City, New York. If segregation is feasible, soils with concentrations of PCBs <50 ppm will be disposed at either the Crossroads special waste landfill in Norridgewock, Maine or the Sawyer landfill in Hamden, Maine.

Post-Excavation Testing

Ransom will document soil conditions in each excavation area following the excavation of PCB-contaminated soil. The soil sampling will be conducted in accordance with §761.61(a)(6). Ransom will collect confirmatory soil samples from the walls and the bases of each of the excavations. If bedrock is encountered at the walls or base, samples will not be collected.

If the excavation is safe to enter, then the sampling will be conducted based on a 1.5-meter grid interval in accordance with the composite soil sampling procedure outlined in 40 CFR 761.289 for point sources of PCB contamination. If the excavation is unsafe to enter, sampling grids will be impossible to set up, and therefore, composite soil samples will be collected by dragging a scoop up the sidewalls and across the base of the excavation. Ransom will make the determination if the excavation is unsafe to enter based on OSHA guidelines.

Soil Cap

In accordance with 40 CFR 761.61, the cap proposed for Area A will consist either of compacted soil with a minimum thickness of 25 cm (10 inches) or concrete or asphalt cap with a minimum thickness of 15 cm (6 inches). Other EPA requirements include:

- The cap will be of sufficient strength to maintain its effectiveness and integrity during the use of the cap surface which is exposed to the environment.
- The cap will not be contaminated at a level ≥1 ppm PCB per AroclorTM (or equivalent) or per congener.
- Repairs will begin within 72 hours of discovery for any breaches which would impair the integrity of the cap.
- The properties of a soil cap include: a) permeability equal to or less than 1×10^{-7} cm/sec; (b) percent soil passing No. 200 Sieve >30; (c) liquid limit >30; and (d) Plasticity Index >15.

Deed Restriction

EPA requires deed restrictions for caps and Low Occupancy Areas within 60 days of completion of a cleanup activity (40 CFR 761.61). If necessary, the owner of the 7 Depot Street site will record, in accordance with State law, a notation on the deed to the property, or on some other instrument which is normally examined during a title search, that will in perpetuity notify any potential purchaser of the property:

- That the land in Area A has been used for PCB remediation waste disposal and is restricted to use as a low occupancy area as defined in §761.3;

- Of the existence of the cap in Area A and the requirement to maintain the cap;
- The applicable cleanup levels left at the site in Area A, under the cap.

The owner will submit a signed certification to the EPA Regional Administrator that he/she has recorded the notation.

3.1.3 PCB-Impacted Building Materials

Testing has identified PCB-impacted materials inside the former mill at concentrations ranging from about 5 to 138 ppm. Materials tested include soil-like material that has accumulated on top of the concrete floors on the basement level and on the second floor of the building (Figure 2). Other materials possibly impacted by PCBs include concrete and wood in areas where oil stains were observed.

Following additional characterization of building materials for PCBs and EPA approval of the proposed PCB mitigation plan, a hazardous waste disposal contractor will remove PCB-impacted soil build-up and other materials from the building interior and manage the materials as PCB Remediation Waste (40 CFR 761.61). Follow-up testing of remaining concrete and other building surfaces will be conducted to confirm removal of PCB Remediation Waste prior to demolition. Confirmatory testing will be conducted in accordance with Subpart O of 40 CFR 761.61, "Sampling to Verify Completion of Self-Implementing Cleanup and On-Site Disposal of Bulk PCB Remediation Waste and Porous Surfaces."

Bulk waste materials will be tested prior to disposal in accordance with requirements of the disposal facility. TSCA-regulated remediation waste (≥50 ppm PCBs) will be disposed of at the CWM Chemical Services, LLC facility located in Model City, New York. If segregation is feasible, soils with concentrations of PCBs <50 ppm will be disposed at either the Crossroads special waste landfill in Norridgewock, Maine or Sawyers in Hamden, Maine.

3.2 13 Depot Street

3.2.1 Clean-up Goal for Petroleum-Impacted Soils

As detailed in section 3.1.1, MDEP has established a clean-up goal for gasoline-impacted soils at the site of 5 mg/kg GRO (lab result). For soils impacted by heavier oils (fuel oil, kerosene, motor oil), MDEP has assigned a "Baseline-2" goal of 200 to 400 ppm (field screening with a PID).

3.2.2 Soils Excavation

Gasoline-Impacted Soils

A hazardous waste contractor will excavate gasoline-impacted soils in accordance with the clean-up goal. The excavation work will be performed using an excavator and

excavated soils will be transferred directly to trucks or roll-off containers lined with polyethylene sheeting for subsequent transport to the disposal facility. Tarps will be used to cover loads prior to transport. MDEP will be notified at least five working days prior to the start of excavation activities.

Ransom will provide monitoring of soils in the excavation with a photoionization detector (PID) calibrated to the MDEP set point for gasoline impacted soils. Based on recommendations of MDEP, soils with PID readings greater than 50 ppm will be targeted for excavation.

Surface Oil Stains

MDEP has requested removal of surface soils visibly impacted by oil. Past use of the site for automobile parts repair and storage has resulted in areas where surface soils have been impacted by petroleum products such as motor oil and transmission fluid. The hazardous waste contractor will excavate areas of visibly stained surface soils and transfer the soil to a truck or roll-off container. The excavation will be monitored by Ransom who will use a PID to identify soils requiring excavation and off-site disposal/treatment (i.e., soils with PID readings of 200 to 400 ppm).

3.2.3 Excavated Soil Testing and Disposal

For excavated soils impacted by gasoline spilled from the former underground tank, MDEP will provide confirmation that the materials contain "virgin hydrocarbon" and reclamation at an in-state recycling facility is feasible. For excavated soils impacted by motor oil and transmission oil, testing will be conducted in accordance with the requirements of the disposal/treatment facility.

It is anticipated that the excavated petroleum-impacted soil will be reclaimed at Commercial Recycling in Scarborough, Maine. Prior testing of site soils has not identified constituents such as metals or PCBs that would render soils impacted by transmission or motor oil ineligible for reclamation in state.

3.2.4 Post-Excavation Testing

Ransom will document soil conditions in the excavation area following excavation of gasoline-impacted soil. In the area of gasoline-impacted soil excavation, Ransom will collect confirmatory soil samples from the walls and the base of the excavation, and submit the samples for GRO and VOC (EPA Method 8260B) analysis. In the area of heavier oil-impacted soils excavation, Ransom will collect soil samples from the walls and base of the excavation for screening with a PID using the MDEP-approved headspace method.

The number of samples will be contingent upon the size of the excavation and soil types encountered. A minimum of four wall samples and one bottom sample will be collected. If bedrock is encountered at the walls or base, samples will not be collected.

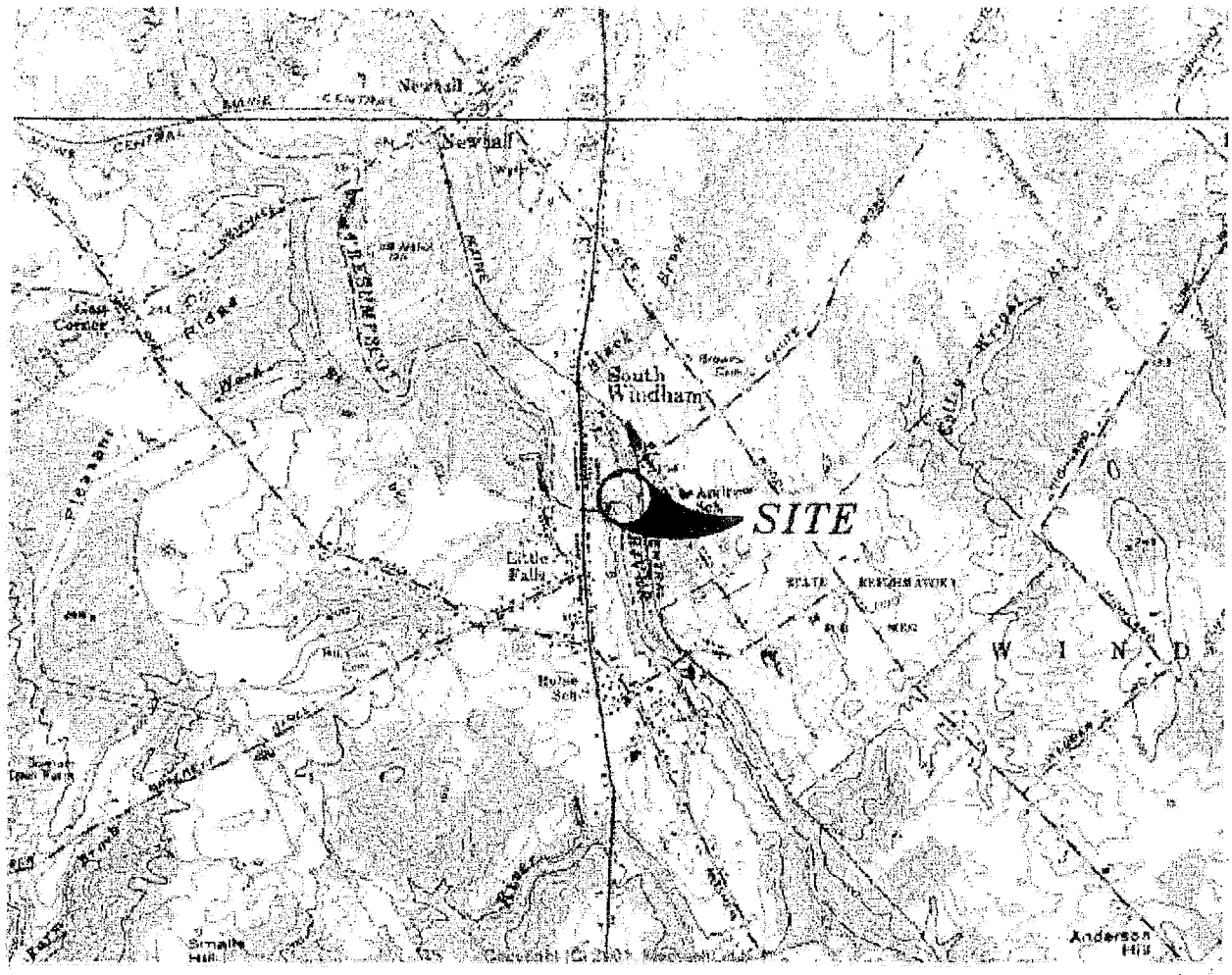
4.0 DOCUMENTATION

Ransom will provide documentation of clean-up for both the 7 and 13 Depot Street parcels for MDEP review. The report will include, at a minimum:

- Site clean-up methodologies
- Photo-documentation of clean-up activities
- Confirmatory test data
- Site restoration measures
- Waste disposal documentation

Upon review and approval of the site clean-up, we understand MDEP will issue a "Certificate of Completion." This certificate documents MDEP concurrence that site clean-up was completed in accordance with the Voluntary Response Action Plan presented herein.

Figures

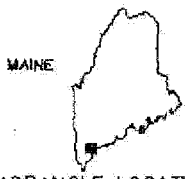


TAKEN FROM U.S.G.S. 7.5x15 MINUTE SERIES TOPOGRAPHIC MAP OF GORHAM, NAINE DATED 1975

CONTOUR INTERVAL IS 3 METERS

SITE COORDINATES: LATITUDE 43°44'06"
LONGITUDE 70°25'32"

UTM COORDINATES: 48: 43: 165mN
03: 85: 220mE



QUADRANGLE LOCATION

SCALE in FEET
1:25,000

RANSOM Environmental Consultants, Inc.

SITE LOCATION MAP

PREPARED FOR:	SITE:	DATE: MAY 2005
RENEE LEWIS PORTLAND, MAINE	7 AND 13 DEPOT STREET WINDHAM, MAINE	PROJECT: 046016 FIGURE: 1

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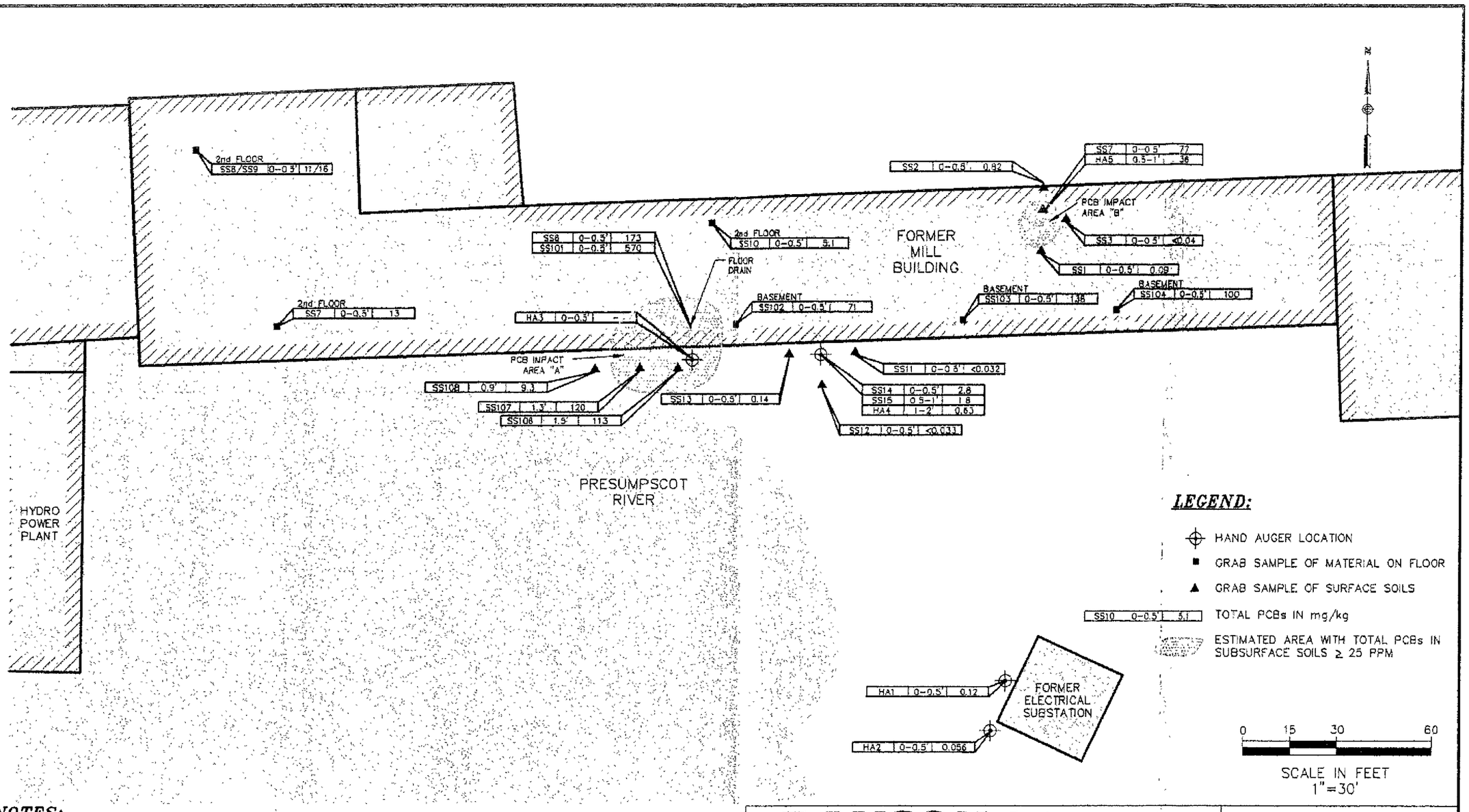


LEGEND:

- HAND AUGER LOCATION
- GRAB SAMPLE OF MATERIAL ON FLOOR
- GRAB SAMPLE OF SURFACE SOILS
- SS10 0-0.5' 5.1 — TOTAL PCBs IN mg/kg
- ESTIMATED AREA WITH TOTAL PCBs IN SUBSURFACE SOILS ≥ 25 PPM

NOTES:

1. SITE PLAN BASED ON DRAWING FROM JACQUES WHITFORD COMPANY, INC. DATED SEPTEMBER 2, 2003
2. SOME FEATURES ARE APPROXIMATE IN LOCATION AND SCALE.
3. THIS PLAN HAS BEEN PREPARED FOR RENEE LEWIS. ALL OTHER USES ARE NOT AUTHORIZED, UNLESS WRITTEN PERMISSION IS OBTAINED FROM RANSOM ENVIRONMENTAL CONSULTANTS, INC.

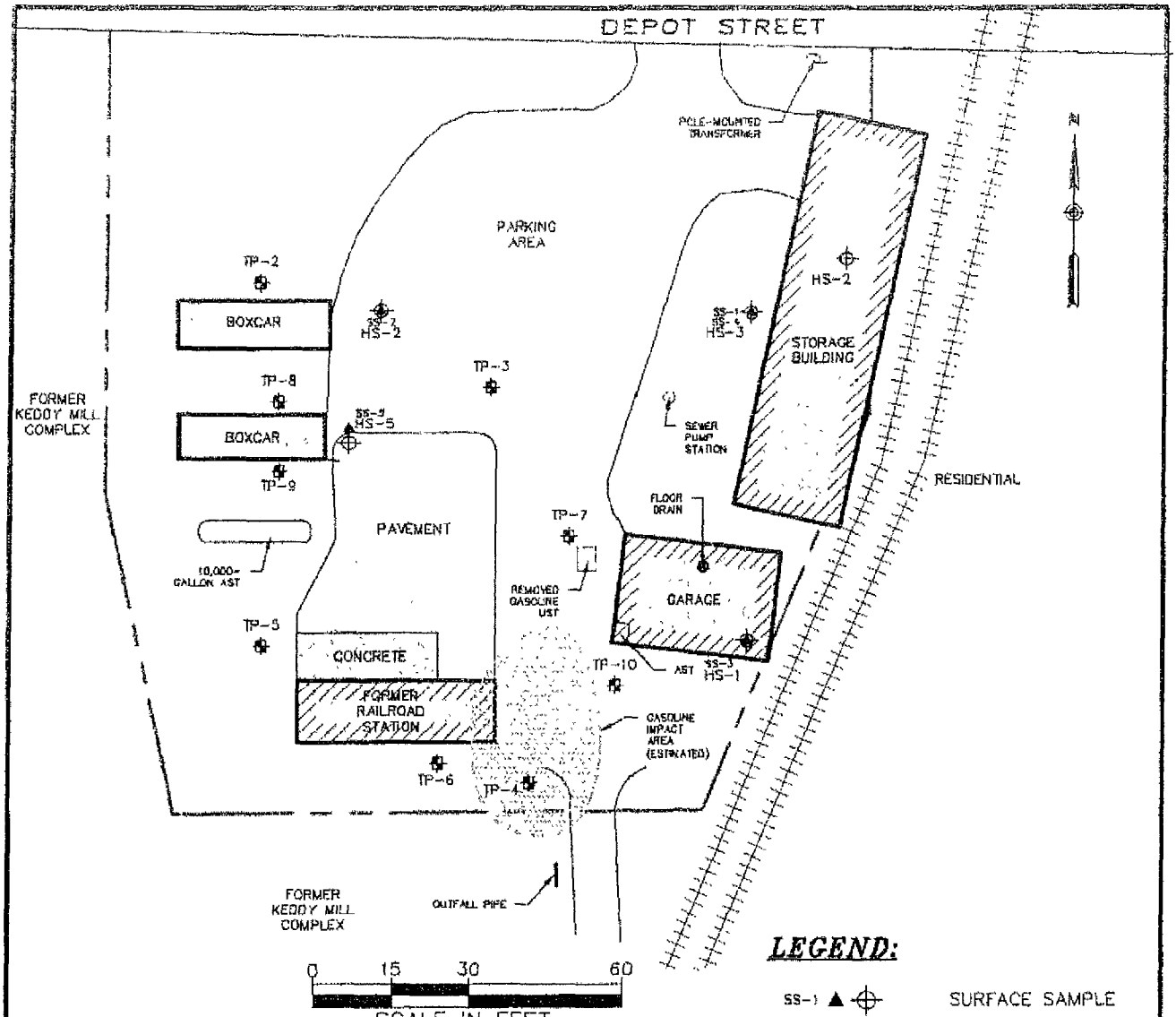
P:\ME-3WOS\2004\046016\046031631.dwg Jun 03, 2005 - 10:12am

RANSOM Environmental Consultants, Inc.

PCB SAMPLE PLAN

PREPARED FOR:	SITE:	DATE:
RENEE LEWIS PORTLAND, MAINE	7 DEPOT STREET WINDHAM, MAINE	PROJECT: 046016 FIGURE: 2

VIL_RESP03865



LEGEND:

- SS-1 ▲ ⊕ — SURFACE SAMPLE
- TP-1 ⊕ — TEST PIT LOCATION
- STREAM
- PROPERTY BOUNDARY
- RAILROAD TRACKS
- ESTIMATED AREA WITH TOTAL PCBs IN SUBSURFACE SOILS > 25 PPM

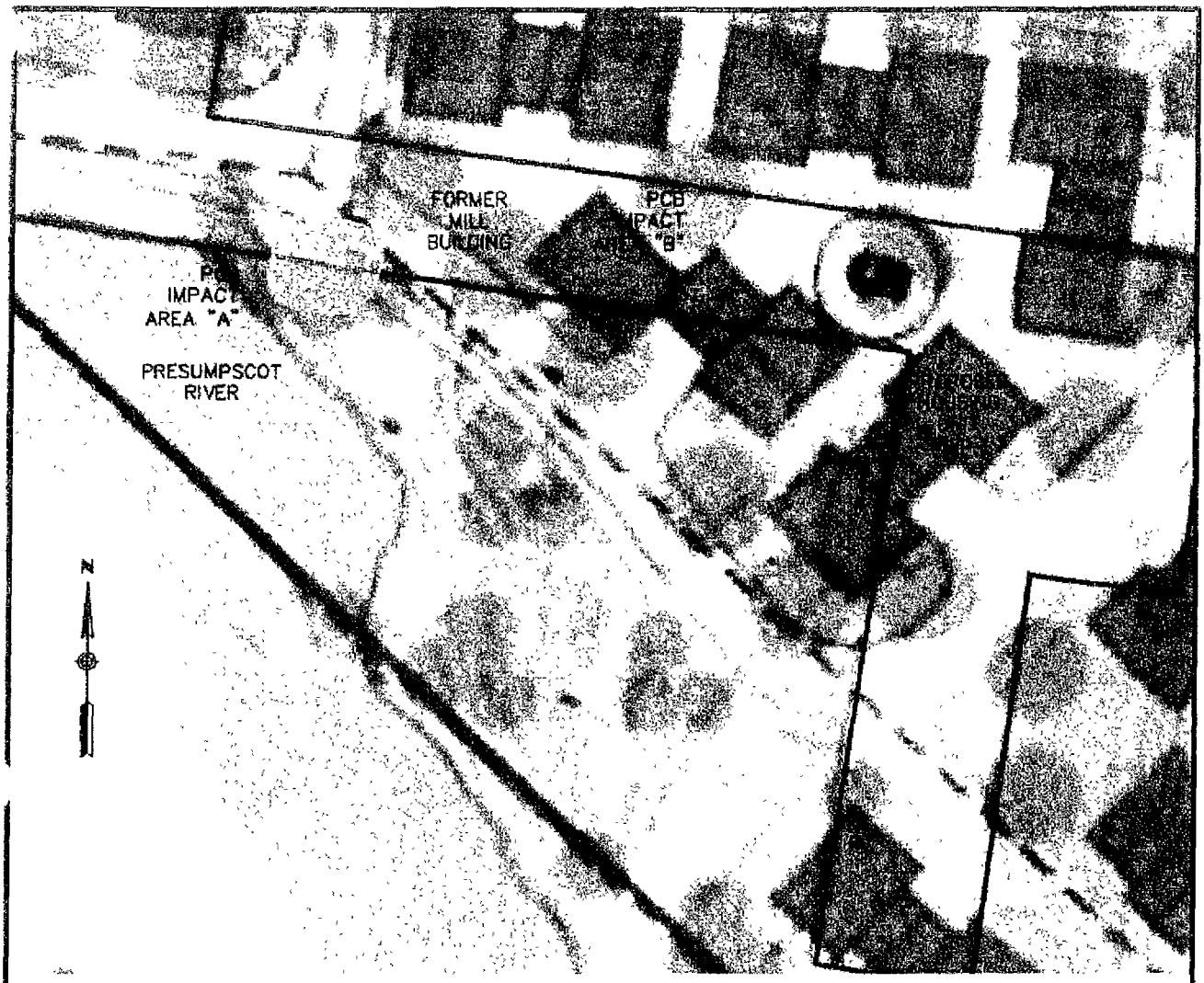
NOTES:

1. SITE PLAN BASED ON DRAWING FROM JACQUES WHITFORD COMPANY, INC. DATED JUNE 2, 2004.
2. SOME FEATURES ARE APPROXIMATE IN LOCATION AND SCALE.
3. THIS PLAN HAS BEEN PREPARED FOR RENEE LEWIS. ALL OTHER USES ARE NOT AUTHORIZED, UNLESS WRITTEN PERMISSION IS OBTAINED FROM RANSOM ENVIRONMENTAL CONSULTANTS, INC.

RANSOM Environmental Consultants, Inc.

EXPLORATION PLAN

PREPARED FOR:	SITE:	DATE: MAY 2005
RENEE LEWIS PORTLAND, MAINE	13 DEPOT STREET WINDHAM, MAINE	PROJECT: 046016 FIGURE: 3



NOTES:

1. SITE PLAN BASED ON DRAWING FROM JACQUES WHITFORD COMPANY, INC. DATED SEPTEMBER 2, 2003
2. SOME FEATURES ARE APPROXIMATE IN LOCATION AND SCALE.
3. THIS PLAN HAS BEEN PREPARED FOR RENEE LEWIS. ALL OTHER USES ARE NOT AUTHORIZED, UNLESS WRITTEN PERMISSION IS OBTAINED FROM RANSOM ENVIRONMENTAL CONSULTANTS, INC.

LEGEND:

ESTIMATED AREA WITH TOTAL PCBs IN SUBSURFACE SOILS ≥ 25 PPM

0 25 50 100

SCALE IN FEET
1"=50'

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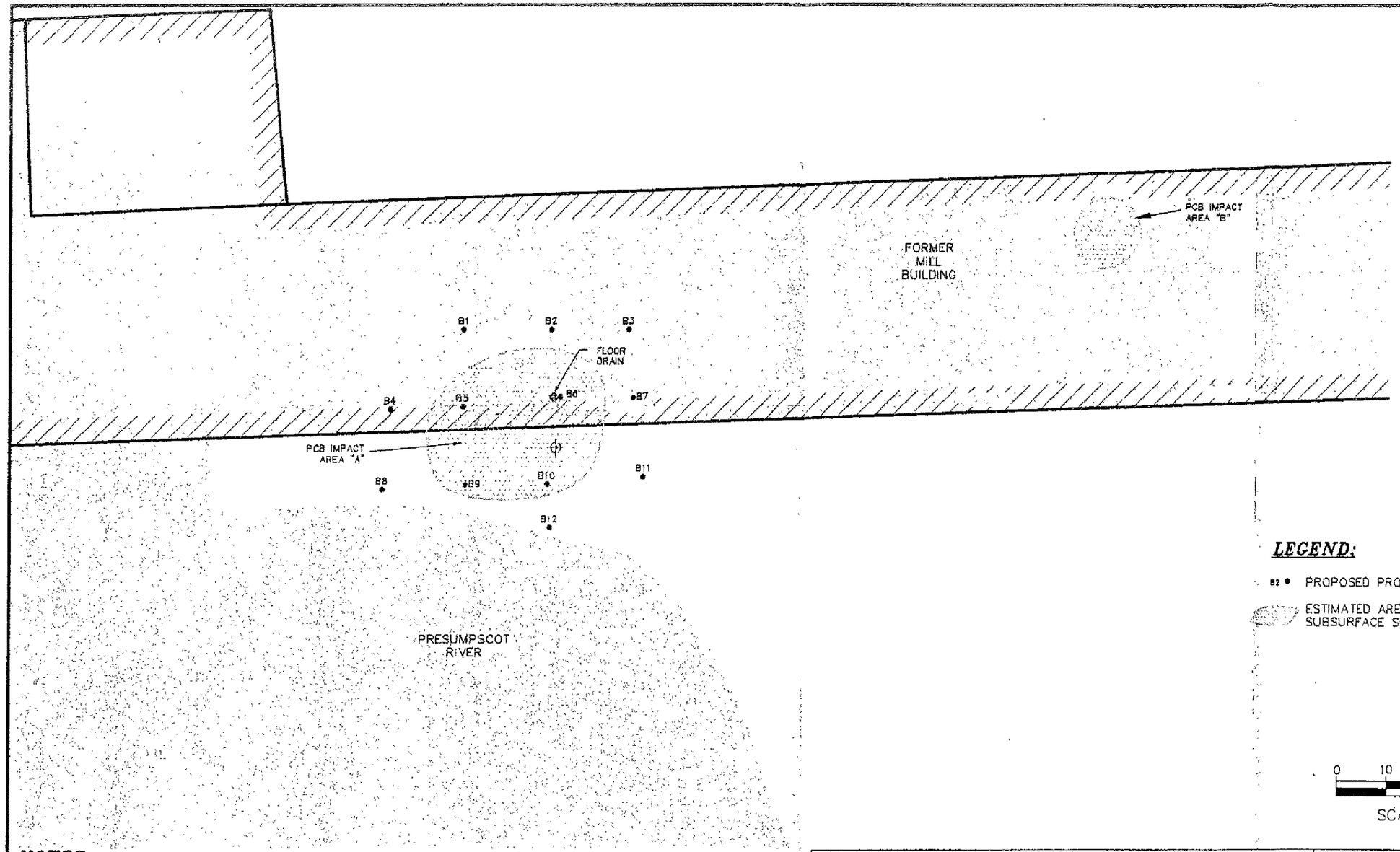
RANSOM Environmental Consultants, Inc.

PROPOSED SITE DEVELOPMENT

PREPARED FOR:	SITE:	
RENEE LEWIS PORTLAND, MAINE	7 DEPOT STREET WINDHAM, MAINE	DATE: JUNE 2005 PROJECT: 046016 FIGURE: 4



LEGEND:

B2 • PROPOSED PROBE LOCATION

ESTIMATED AREA WITH TOTAL PCBs IN SUBSURFACE SOILS ≥ 25 PPM

0 10 20 40

SCALE IN FEET
1"=20'

NOTES:

1. SITE PLAN BASED ON DRAWING FROM JACQUES WHITFORD COMPANY, INC. DATED SEPTEMBER 2, 2003
2. SOME FEATURES ARE APPROXIMATE IN LOCATION AND SCALE.
3. THIS PLAN HAS BEEN PREPARED FOR RENEE LEWIS. ALL OTHER USES ARE NOT AUTHORIZED, UNLESS WRITTEN PERMISSION IS OBTAINED FROM RANSOM ENVIRONMENTAL CONSULTANTS, INC.

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RANSOM Environmental Consultants, Inc.

PROPOSED BORINGS

PREPARED FOR:	SITE:	DATE: 06/03/05
RENEE LEWIS PORTLAND, MAINE	7 DEPOT STREET WINDHAM, MAINE	PROJECT: 046016 FIGURE: 5

Appendix A
Data from Jacques Whitford Report

7 Depot Street
Windham, Maine
Soil Analytical Results

Analyte	Maine DEP	TP-101	TP-102	TP-102	TP-103	TP-104	TP-107	TP-107	TP-110
Depth of Sample	Residential	8-10'	0-2'	4-6'	0-2'	10-12'	2-4'	8-10'	0-2'
Date Collected	Guideline	8/4/2003	8/4/2003	8/4/2003	8/4/2003	8/4/2003	8/4/2003	8/4/2003	8/4/2003
DRO (mg/kg)									
DIESEL RANGE ORGANICS		10	NA	NA	NA	U 6.8	NA	9	NA
Metals (mg/kg)									
ARSENIC	10	NA	**16**	5	**11**	NA	3	NA	**16**
BARIUM	10,000	NA	45	98	75	NA	87	NA	81
CADMIUM	27	NA	U 8.78	U 1.00	U 4.69	NA	U 1.06	NA	U 1.00
CHROMIUM	950	NA	266	7	133	NA	18	NA	16
LEAD	375	NA	150	12	164	NA	24	NA	49
MERCURY	60	NA	0	U 0.048	0	NA	0	NA	0
SELENIUM	950	NA	U 8.8	U 1.0	U 4.7	NA	U 1.1	NA	U 1.0
SILVER	950	NA	U 1.5	U 1.5	U 1.5	NA	U 1.6	NA	U 1.5
PCBs (ug/kg)									
AROCLOR-1016	100	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1221	*	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1232	*	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1242	*	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1248	*	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1254	*	NA	NA	NA	NA	NA	NA	NA	NA
AROCLOR-1260	*	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs (sum of above)	2,200	NA	NA	NA	NA	NA	NA	NA	NA
VOCs (ug/kg)									
METHYLENE CHLORIDE	13,000	17	NA	NA	NA	7	NA	10	NA
TRICHLOROFLUOROMETHANE	*	190	NA	NA	NA	70	NA	68	NA
Other Compounds									
TOTAL SOLIDS (%)	*	73	92	84	88	74	84	80	90

Notes:

* Regulatory Guideline Not Available

Bold values indicate an excedance of the Regulatory Guideline

PCBs = Polychlorinated Biphenyls

VOCs = Volatile Organic Compounds

NA = Not Analyzed

7 Depot Street
Windham, Maine
Soil Analytical Results

Analyte	Maine DEP	TP-111	TP-112	HA-1	HA-2	HA-4	HA-5	HA-6	SS1
Depth of Sample	Residential	2-4'	0-2'	0-0.3'	0-0.3'	1-2'	0.5-1'	0-0.3'	0-0.5'
Date Collected	Guideline	8/4/2003	8/4/2003	8/4/2003	8/4/2003	8/4/2003	8/8/2003	8/4/2003	11/25/2003
DRO (mg/kg)									
DIESEL RANGE ORGANICS		29	NA	63	NA	2,900	3,300	9,100	NA
Metals (mg/kg)									
ARSENIC	10	NA	**22**	NA	NA	NA	NA	NA	NA
BARIUM	10,000	NA	251	NA	NA	NA	NA	NA	NA
CADMIUM	27	NA	U 2.21	NA	NA	NA	NA	NA	NA
CHROMIUM	950	NA	55	NA	NA	NA	NA	NA	NA
LEAD	375	NA	338	NA	NA	NA	NA	NA	NA
MERCURY	60	NA	1	NA	NA	NA	NA	NA	NA
SELENIUM	950	NA	U 2.2	NA	NA	NA	NA	NA	NA
SILVER	950	NA	U 1.6	NA	NA	NA	NA	NA	NA
PCBs (ug/kg)									
AROCLOR-1016	100	NA	NA	U 20	U 20	U 18	U 200	NA	U 39.0
AROCLOR-1221	*	NA	NA	U 20	U 20	U 18	U 200	NA	U 39.0
AROCLOR-1232	*	NA	NA	U 20	U 20	U 18	U 200	NA	U 39.0
AROCLOR-1242	*	NA	NA	U 20	U 20	99	U 200	NA	U 39.0
AROCLOR-1248	*	NA	NA	U 20	U 20	U 18	U 200	NA	U 39.0
AROCLOR-1254	*	NA	NA	79	56	530	24,000	NA	89.9
AROCLOR-1260	*	NA	NA	40	U 20	U 18	12,000	NA	U 39.0
Total PCBs (sum of above)	2,200	NA	NA	119	56	629	**36,000**	NA	90
VOCs (ug/kg)									
METHYLENE CHLORIDE	13,000	U6	NA	NA	NA	NA	NA	6	NA
TRICHLOROFLUOROMETHANE	*	61	NA	NA	NA	NA	NA	48	NA
Other Compounds									
TOTAL SOLIDS (%)	*	84	79	85	83	93	84	96	83.6

Notes:

* Regulatory Guideline Not Available

Bold values indicate an excedance of the Regulatory Guideline

PCBs = Polychlorinated Biphenyls

VOCs = Volatile Organic Compounds

NA = Not Analyzed

7 Depot Street
Windham, Maine
Soil Analytical Results

Analyte	Maine DEP	SS2	SS3	SS5	SS6	SS7	SS8	SS9
Depth of Sample	Residential	0-0.5'	0-0.5'	0-0.5'	0-0.5'	0-0.5'	0-0.5'	0-0.5'
Date Collected	Guideline	11/25/2003	11/25/2003	11/25/2003	11/25/2003	11/25/2003	11/25/2003	11/25/2003
DRO (mg/kg)								
DIESEL RANGE ORGANICS		NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)								
ARSENIC	10	NA	NA	NA	NA	NA	NA	NA
BARIUM	10,000	NA	NA	NA	NA	NA	NA	NA
CADMIUM	27	NA	NA	NA	NA	NA	NA	NA
CHROMIUM	950	NA	NA	NA	NA	NA	NA	NA
LEAD	375	NA	NA	NA	NA	NA	NA	NA
MERCURY	60	NA	NA	NA	NA	NA	NA	NA
SELENIUM	950	NA	NA	NA	NA	NA	NA	NA
SILVER	950	NA	NA	NA	NA	NA	NA	NA
PCBs (ug/kg)								
AROCLOR-1016	100	U 36.1	U 40	U 39.2	U 48.2	U 33.1	U 54.6	3,210
AROCLOR-1221	*	U 36.1	U 40	U 39.2	U 48.2	U 33.1	U 54.6	U 47.6
AROCLOR-1232	*	U 36.1	U 40	U 39.2	U 48.2	U 33.1	U 54.6	U 47.6
AROCLOR-1242	*	U 36.1	U 40	U 39.2	U 48.2	U 33.1	U 54.6	U 47.6
AROCLOR-1248	*	U 36.1	U 40	U 39.2	U 48.2	U 33.1	U 54.6	U 47.6
AROCLOR-1254	*	500	U 40	44,800	120,000	13,100	11,200	9,590
AROCLOR-1260	*	317	U 40	32,200	53,500	U 33.1	U 54.6	3,540
Total PCBs (sum of above)	2,200	817		**77,000**	**173,500**	**13,100**	**11,200**	**16,340**
VOCs (ug/kg)								
METHYLENE CHLORIDE	13,000	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	*	NA	NA	NA	NA	NA	NA	NA
Other Compounds								
TOTAL SOLIDS (%)	*	83	81.2	80.8	68.5	95.5	90 3	90.4

Notes

* Regulatory Guideline Not Available

Bold values indicate an excedance of the Regulatory Guideline

PCBs = Polychlonnated Biphenyls

VOCs = Volatile Organic Compounds

NA = Not Analyzed

7 Depot Street
Windham, Maine
Soil Analytical Results

Analyte	Maine DEP	SS10	SS11	SS12	SS13	SS14	SS15	SS101
Depth of Sample	Residential	0-0.5'	0-0.5'	0-0.5'	0-0.5'	0-0.5'	0.5-1.0'	fl. drain
Date Collected	Guideline	11/25/2003	11/25/2003	11/25/2003	11/25/2003	11/25/2003	11/25/2003	1/13/2004
DRO (mg/kg)								
DIESEL RANGE ORGANICS		NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)								
ARSENIC	10	NA	NA	NA	NA	NA	NA	17.5
BARIUM	10,000	NA	NA	NA	NA	NA	NA	126
CADMIUM	27	NA	NA	NA	NA	NA	NA	<0.651
CHROMIUM	950	NA	NA	NA	NA	NA	NA	158
LEAD	375	NA	NA	NA	NA	NA	NA	109
MERCURY	60	NA	NA	NA	NA	NA	NA	<0.243
SELENIUM	950	NA	NA	NA	NA	NA	NA	<3.91
SILVER	950	NA	NA	NA	NA	NA	NA	<2.61
PCBs (ug/kg)								
AROCLOR-1016	100	U 43.9	U 32.2	U 32.5	U 35.1	**499**	222	<4410
AROCLOR-1221	*	U 43.9	U 32.2	U 32.5	U 35.1	U 43.8	U 37.2	<4410
AROCLOR-1232	*	U 43.9	U 32.2	U 32.5	U 35.1	U 43.8	U 37.2	<4410
AROCLOR-1242	*	U 43.9	U 32.2	U 32.5	U 35.1	U 43.8	U 37.2	<4410
AROCLOR-1248	*	U 43.9	U 32.2	U 32.5	U 35.1	U 43.8	U 37.2	<4410
AROCLOR-1254	*	5,100	U 32.2	U 32.5	135	1770	1170	262,000
AROCLOR-1260	*	U 43.9	U 32.2	U 32.5	U 35.1	532	445	<4410
Total PCBs (sum of above)	2,200	**5,100**			135	**2,801**	1,837	262,000
VOCs (ug/kg)								
METHYLENE CHLORIDE	13,000	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	*	NA	NA	NA	NA	NA	NA	NA
Other Compounds								
TOTAL SOLIDS (%)	*	88.9	92.2	95.3	98.2	84.2	90.5	70.9

Notes:

* Regulatory Guideline Not Available

Bold values indicate an exceedance of the Regulatory Guideline

PCBs = Polychlorinated Biphenyls

VOCs = Volatile Organic Compounds

NA = Not Analyzed

7 Depot Street
Windham, Maine
Soil Analytical Results

Analyte	Maine DEP	SS101 (dup)	SS102	SS103	SS104	SS105	SS106	SS107
Depth of Sample	Residential	fl. drain	soil on fl.	soil on fl.	soil on fl.	1'	1.5'	1.3'
Date Collected	Guideline	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004	1/13/2004	2/3/2004
DRO (mg/kg)								
DIESEL RANGE ORGANICS		NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)								
ARSENIC	10	NA	NA	NA	NA	**13.6**	NA	NA
BARIUM	10,000	NA	NA	NA	NA	73.4	NA	NA
CADMIUM	27	NA	NA	NA	NA	<0.714	NA	NA
CHROMIUM	950	NA	NA	NA	NA	32	NA	NA
LEAD	375	NA	NA	NA	NA	212	NA	NA
MERCURY	60	NA	NA	NA	NA	0.25	NA	NA
SELENIUM	950	NA	NA	NA	NA	<4.28	NA	NA
SILVER	950	NA	NA	NA	NA	<2.86	NA	NA
PCBs (ug/kg)								
AROCLOR-1016	100	<31,000	<6680	<29,800	<29,900	NA	<40,900	<2300
AROCLOR-1221	*	<31,000	<6680	<29,800	<29,900	NA	<40,900	<2300
AROCLOR-1232	*	<31,000	<6680	<29,800	<29,900	NA	<40,900	<2300
AROCLOR-1242	*	<31,000	<6680	<29,800	<29,900	NA	<40,900	<2300
AROCLOR-1248	*	<31,000	<6680	<29,800	<29,900	NA	<40,900	<2300
AROCLOR-1254	*	570,000	71,100	138,000	100,000	NA	113,000	120,000
AROCLOR-1260	*	<31,000	<6680	<29,800	<29,900	NA	<40,900	<2300
Total PCBs (sum of above)	2,200	**570,000**	**71,100**	**138,000**	**100,000**	NA	**113,000**	**120,000**
VOCs (ug/kg)								
METHYLENE CHLORIDE	13,000	NA	NA	NA	NA	NA	NA	NA
TRICHLOROFLUOROMETHANE	*	NA	NA	NA	NA	NA	NA	NA
Other Compounds								
TOTAL SOLIDS (%)	*	54.9	92.6	94.9	90.9	68.2	67.1	73.4

Notes:

* Regulatory Guideline Not Available

Bold values indicate an exceedance of the Regulatory Guideline

PCBs = Polychlorinated Biphenyls

VOCs = Volatile Organic Compounds

NA = Not Analyzed

7 Depot Street
Windham, Maine
Soil Analytical Results

	Analyte	Maine DEP	SS108
	Depth of Sample	Residential	0.9'
	Date Collected	Guideline	2/3/2004
DRO (mg/kg)			
	DIESEL RANGE ORGANICS		NA
Metals (mg/kg)			
	ARSENIC	10	NA
	BARIUM	10,000	NA
	CADMIUM	27	NA
	CHROMIUM	950	NA
	LEAD	375	NA
	MERCURY	60	NA
	SELENIUM	950	NA
	SILVER	950	NA
PCBs (ug/kg)			
	AROCLOR-1016	100	<140
	AROCLOR-1221	*	<140
	AROCLOR-1232	*	<140
	AROCLOR-1242	*	<140
	AROCLOR-1248	*	<140
	AROCLOR-1254	*	9,300
	AROCLOR-1260	*	<140
	Total PCBs (sum of above)	2,200	**9,300**
VOCs (ug/kg)			
	METHYLENE CHLORIDE	13,000	NA
	TRICHLOROFLUOROMETHANE	*	NA
Other Compounds			
	TOTAL SOLIDS (%)	*	61.8

Notes:

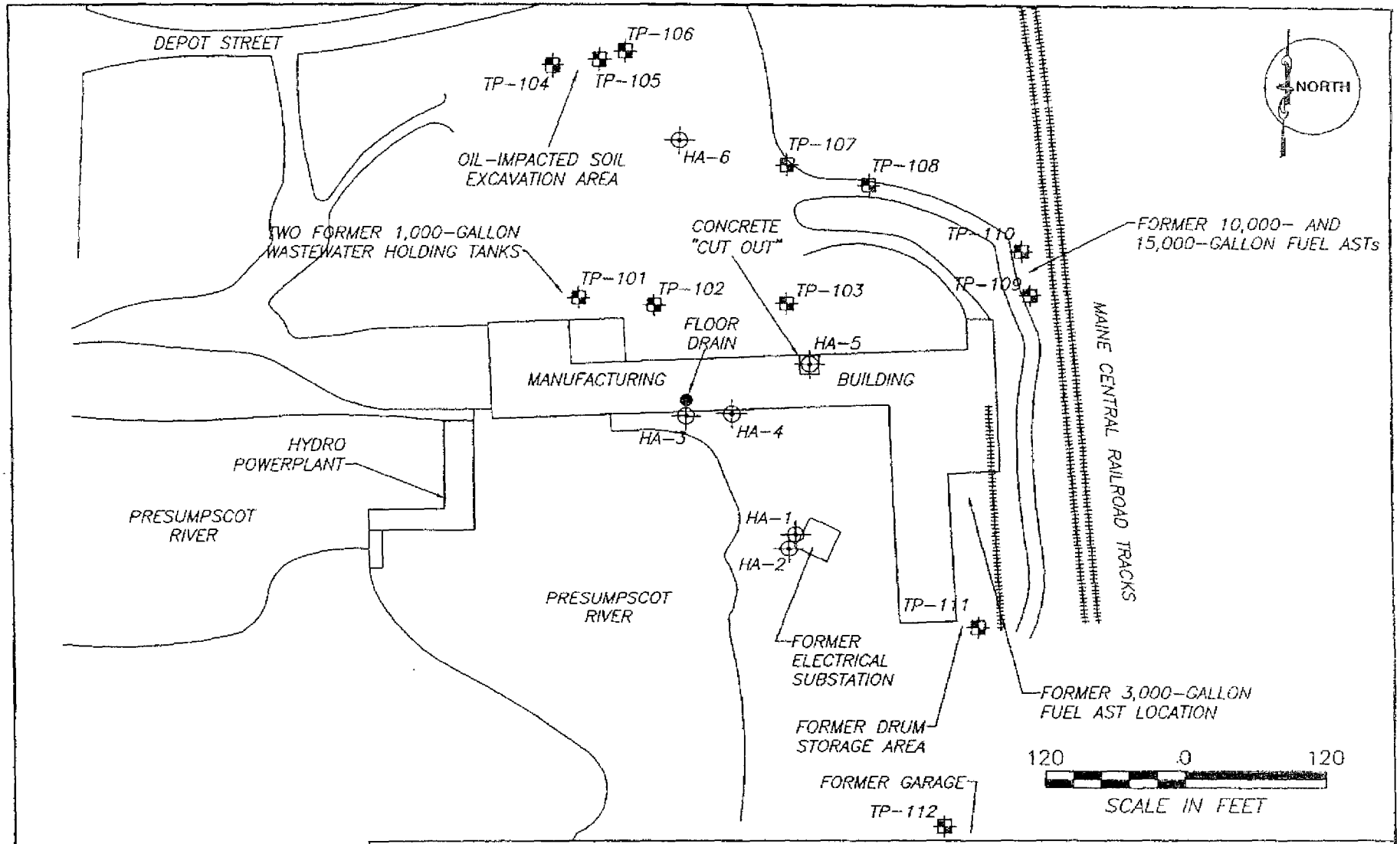
* Regulatory Guideline Not Available

Bold values indicate an excedance of the Regulatory Guideline

PCBs = Polychlorinated Biphenyls

VOCs = Volatile Organic Compounds

NA = Not Analyzed



Jacques Whitford Company, Inc.

JACQUES WHITFORD LOCATION: PORTLAND, MAINE				
DATE PREPARED: 9-02-03	DESIGNED BY: DVC	DRAWN BY: TS	CHECKED BY: BSB	REVIEWED BY: DVC
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
PROJECT NAME/FILE NAME: 7 DEPOT STREET/SITE		PROJECT NUMBER/PHASE: MEP03102/*	SCALE: 1"=120'	PREPARED FOR: RENEE LEWIS

DRAWING TITLE:

SITE PLAN

SEVEN DEPOT STREET
WINDHAM, MAINE

FIGURE NO. 2

VIL_RESP03876

SECTION 19

FLOODING

The project site abuts the Presumpscot River and Little Falls Hydro-Electric Dam. Based upon the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) the 100-year flood plain generally follows the observed river edge and ties into the power generation building associated with the dam. However, by delineating the flood plain using the flood elevations published in the FEMA Flood Insurance Study (FIS) and the recent topographical field survey the flood plain would be significantly different. It appears that this area was excavated sometime in the past and some building foundations removed (though this can not be proved). Further, flooding in this area has never occurred according to Roger Timmons, Community Development Director for the Town of Windham. So although the current topography seems to indicate that the floodplain extends nearly into Depot Street, there is no historical precedent that indicates that the flood plain extends past the riverbank. Based on the aforementioned information a Conditional Letter of Map Revision for Fill (CLOMR-F) has been submitted to FEMA for review and approval.

One of the concerns regarding the stabilization of the riverbank is the close proximity to the penstocks that discharge the water through the turbines of the hydro-electric dam. In order to counter act the potential affects of erosion large diameter stone is being installed below the existing water level. This stone will also act as a foundation in the stabilization of the remaining riverbank. Willow tree stakes will be used in the stabilization of the riverbank. A year or two after the restoration the riverbank will be fully vegetated and look very much like a traditional "riparian" river corridor.

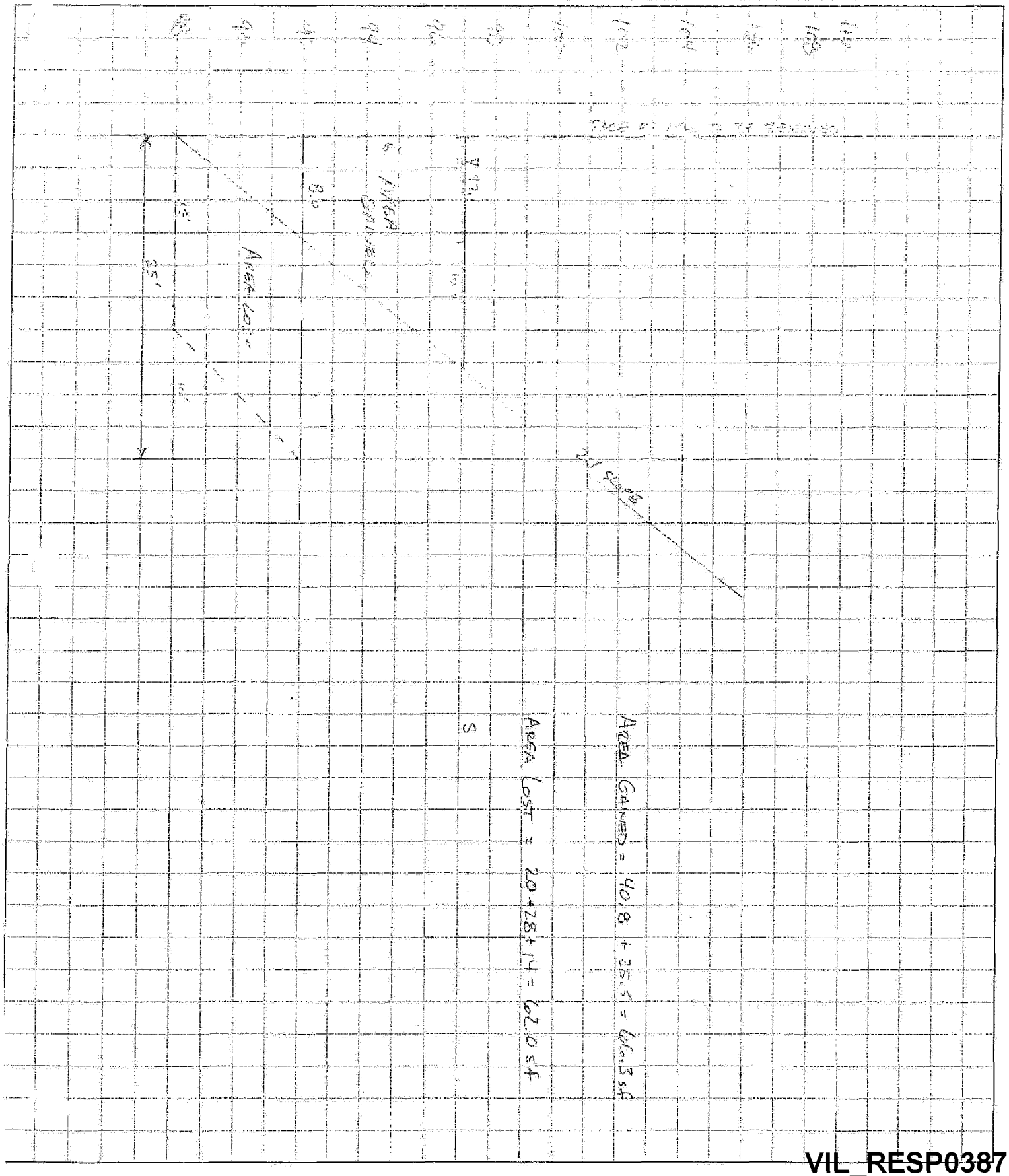
This project not only impacts a portion of the flood plain, it is also creates flood plain downstream of the dam. The existing mill building is constructed on piles over a portion of the river. As a part of this development the mill building will be removed and 28,680 square feet of riverbank will be restored and approximately 2,165 square feet of floodplain downstream of the dam will be added.

The removal of the mill structure and the restoration of the shoreline will create additional flood plain storage area. The additional storage created by the shoreline restoration is equivalent to the volume of fill proposed along the Presumpscot River. Therefore, additional compensation is not required. The flood plain volume calculations are attached for your reference.

A copy of the CLOMR-F application can be found in this section. Following please find a copy of a floodway plan that shows the FIRM 100 year flood plain, the 100 year flood plain based upon floodway data elevations, and the future floodway elevations after the mill is removed and the riverbank restored.

Surveying Engineering Land Planning
153 U.S. Route 1, Scarborough, Maine 04074
Tel: 207-883-1000 • Fax: 207-883-1001

SHEET NO. _____ OF _____
CALCULATED BY _____ DATE _____
CHECKED BY _____ DATE _____
SCALE _____



NCS

Northeast Civil Solutions
INCORPORATED

153 U.S. Route 1
Scarborough
Maine 04074

tel
207.885.1000

800.882.2227

fax
207.883.1001

March 19, 2007

Federal Emergency Management Agency
LOMA Depot
3601 Eisenhower Avenue
Alexandria, VA 22304-6425

RE: Village at Little Falls, Windham, ME, CLOMR-F

Dear LOMA Manager,

Enclosed please find the necessary forms for the processing of a Conditional Letter of Map Revision for Fill (CLOMR-F). The application fee has been mailed to a separate address as required. The project site abuts the Presumpscot River and Little Falls Hydro-Electric Dam. Based upon the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) the 100-year flood plain generally follows the observed river edge and ties into the power generation building associated with the dam. However, by delineating the flood plain using the flood elevations published in the FEMA Flood Insurance Study (FIS) and the recent topographical field survey the flood plain would be significantly different. It appears that this area was excavated sometime in the past and some building foundations removed (though this can not be proved).

If you should have any questions or comments please contact me immediately.

Sincerely,
Northeast Civil Solutions

Lee Allen, P.E.
Project Manager

Cc: W. Louis Sidell, CFM, Floodplain Management Coordinator

G:\29000\29500\29522-HRC-Village at Little Falls\Site Location\fema-clomr-app-3-19-07.doc

U.S. DEPARTMENT OF HOMELAND SECURITY - FEDERAL EMERGENCY MANAGEMENT AGENCY

PROPERTY INFORMATION FORM

O.M.B. NO. 1660-0015
Expires August 31, 2007

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 1.83 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. You are not required to respond to this collection of information unless a valid OMB control number appears in the upper right corner of this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, U.S. Department of Homeland Security, Federal Emergency Management Agency, 500 C Street, SW, Washington DC 20472, Paperwork Reduction Project (1660-0015). Submission of the form is required to obtain or retain benefits under the National Flood Insurance Program. Please do not send your completed survey to the above address.

This form may be completed by the property owner, property owner's agent, licensed land surveyor, or registered professional engineer to support a request for a Letter of Map Amendment (LOMA), Conditional Letter of Map Amendment (CLOMA), Letter of Map Revision Based on Fill (LOMR-F), or Conditional Letter of Map Revision Based on Fill (CLOMR-F) for existing or proposed, single or multiple lots/structures. Please check the item below that describes your request:

☐ LOMA	A letter from DHS-FEMA stating that an existing structure or parcel of land that has not been elevated by fill (natural grade) would not be inundated by the base flood.
☐ CLOMA	A letter from DHS-FEMA stating that a proposed structure that is not to be elevated by fill (natural grade) would not be inundated by the base flood if built as proposed.
☐ LOMR-F	A letter from DHS-FEMA stating that an existing structure or parcel of land that has been elevated by fill would not be inundated by the base flood.
☒ CLOMR-F	A letter from DHS-FEMA stating that a parcel of land or proposed structure that will be elevated by fill would not be inundated by the base flood if fill is placed on the parcel as proposed or the structure is built as proposed.

Fill is defined as material from any source placed to raise the ground to or above the Base Flood Elevation (BFE). The common construction practice of removing unsuitable existing material (topsoil) and backfilling with select structural material is not considered the placement of fill if the practice does not alter the existing (natural grade) elevation, which is at or above the BFE. **Fill that is placed before the date of the first National Flood Insurance Program (NFIP) map showing the area in a Special Flood Hazard Area (SFHA) is considered natural grade.**

Has fill been placed on your property? ☐ Yes ☒ No If yes, when was fill placed? / month/year

Will fill be placed on your property? ☒ Yes ☐ No If yes, when will fill be placed? April / 2008 month/year

1. Street Address of the Property (if request is for multiple structures, please attach additional sheet):
   1 Main St., 3 Depot St., 7 Depot St., 13 Depot St., Windham, Maine 04062
2. Legal description of Property (Lot, Block, Subdivision) (if a street address cannot be provided):
   Deeds for each of the above properties listed respectively: Bk.3612,Pg.25, Bk.23312, Pg.291, Bk. 23312, Pg.286, Bk.23835,Pg.21 & Bk.24617,Pg.165
3. Are you requesting that the SFHA designation be removed from (check one):
   - ☒ the entire legally recorded property?
   - ☐ a portion of land within the bounds of the property (a certified metes and bounds description and map of the area to be removed, certified by a licensed land surveyor or registered professional engineer, are required)?
   - ☐ structures on the property? What are the dates of construction?
4. Is this request for a (check one):
   - ☐ single structure
   - ☐ single lot
   - ☐ multiple structures (How many structures are involved in your request? List the number:)
   - ☒ multiple lots (How many lots are involved in your request? List the number: 4)

VIL_RESP03881

U.S. DEPARTMENT OF HOMELAND SECURITY - FEDERAL EMERGENCY MANAGEMENT AGENCY

ELEVATION FORM

O.M.B. NO. 1660-0015
Expires August 31, 2007

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 1.25 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. You are not required to respond to this collection of information unless a valid OMB control number appears in the upper right corner of this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, U.S. Department of Homeland Security, Federal Emergency Management Agency, 500 C Street, SW, Washington DC 20472, Paperwork Reduction Project (1660-0015). Submission of the form is required to obtain or retain benefits under the National Flood Insurance Program. Please do not send your completed survey to the above address.

This form must be completed for requests and must be completed and signed by a registered professional engineer or licensed land surveyor. A DHS - FEMA National Flood Insurance Program (NFIP) Elevation Certificate may be submitted in addition to this form for single structure requests.

For requests to remove a structure on natural grade OR on engineered fill from the Special Flood Hazard Area (SFHA), submit the lowest adjacent grade (the lowest ground touching the structure), including an attached deck or garage. For requests to remove an entire parcel of land from the SFHA, provide the lowest lot elevation; or, if the request involves an area described by metes and bounds, provide the lowest elevation within the metes and bounds description.

1. NFIP Community Number: 230189 Property Name or Address: Village at Little Falls

2. Are the elevations listed below based on [X] existing or [ ] proposed conditions? (Check one)

3. What is the elevation datum? 29 If any of the elevations listed below were computed using a datum different than the datum used for the effective Flood Insurance Rate Map (FIRM) (e.g., NGVD 29 or NAVD 88), what was the conversion factor?

Local Elevation +/- ft. = FIRM Datum

4. Please provide the Latitude and Longitude of the most upstream edge of the structure (in decimal degrees):
Indicate Datum: [X] NAD83 [ ] NAD27 43°44.043' Lat. 70°25.544 Long.
Please provide the Latitude and Longitude of the most upstream edge of the property (in decimal degrees):
Indicate Datum: [X] NAD83 [ ] NAD27 43°44.010' Lat. 70°25.390 Long.

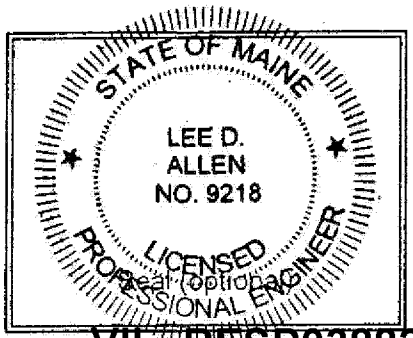
5. For the existing or proposed structures listed below, what are the types of construction? (check all that apply)
[ ] crawl space [ ] slab on grade [X] basement/enclosure [ ] other (explain)

6. Has DHS - FEMA identified this area as subject to land subsidence or uplift? (see instructions) [ ] Yes [X] No
If yes, what is the date of the current releveling? / (month/year)

Lot Number	Block Number	Lowest Lot Elevation	Lowest Adjacent Grade To Structure	Base Flood Elevation	BFE Source	For DHS - FEMA Use Only
10	38		112.4	115.1/97.1	Floodway Data	
7-1	38		123.1	115.1	Floodway Data	

This certification is to be signed and sealed by a licensed land surveyor, registered professional engineer, or architect authorized by law to certify elevation information. All documents submitted in support of this request are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

Certifier's Name: Lee Allen	License No.: 9218	Expiration Date: 12/31/2007
Company Name: Northeast Civil Solutions	Telephone No.: (207)883-1000	Fax No.: (207)883-1001
Signature: Lee Allen	Date: March 15, 2007	



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COMMUNITY ACKNOWLEDGMENT FORM

Expires August 31, 2007

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 1.38 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing, reviewing, and submitting the form. You are not required to respond to this collection of information unless a valid OMB control number appears in the upper right corner of this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, U.S. Department of Homeland Security, Federal Emergency Management Agency, 500 C Street, SW, Washington DC 20472, Paperwork Reduction Project (1660-0015). Submission of the form is required to obtain or retain benefits under the National Flood Insurance Program. Please do not send your completed survey to the above address.

This form must be completed for requests involving the existing or proposed placement of fill (complete Section A) OR to provide acknowledgment of this request to remove a property from the SFHA which was previously located within the regulatory floodway (complete Section B).

This form must be completed and signed by the official responsible for floodplain management in the community. The community number and the subject property address must appear in the spaces provided below.

Community Number: Property Name or Address:

A. REQUESTS INVOLVING THE PLACEMENT OF FILL

As the community official responsible for floodplain management, I hereby acknowledge that we have received and reviewed this Letter of Map Revision Based on Fill (LOMR-F) or Conditional LOMR-F request. Based upon the community's review, we find the completed or proposed project meets or is designed to meet all of the community floodplain management requirements, including the requirement that no fill be placed in the regulatory floodway, and that all necessary Federal, State, and local permits have been, or in the case of a Conditional LOMR-F, will be obtained. In addition, we have determined that the land and any existing or proposed structures to be removed from the SFHA are or will be reasonably safe from flooding as defined in 44CFR 65.2(c), and that we have available upon request by DHS-FEMA, all analyses and documentation used to make this determination. For LOMR-F requests, we understand that this request is being forwarded to DHS-FEMA for a possible map revision. For LOMR-F or Conditional LOMR-F requests that have the potential to impact an endangered species, documentation will be submitted to show that we have complied with Sections 9 and 10 of the Endangered Species Act (ESA). Section 9 of the ESA prohibits anyone from "taking" or harming an endangered species. If an action might harm an endangered species, a permit is required from U.S. Fish and Wildlife Service or National Marine Fisheries Service under Section 10 of the ESA. For actions authorized, funded, or being carried out by Federal or State agencies, documentation from the agency showing its compliance with Section 7(a)(2) of the ESA will be submitted.

Community Comments:

Community Official's Name and Title: (*Please Print or Type*)		Telephone No.:
Roger Timmons, Community Development Director		(207)892-1901
Community Name:	Community Official's Signature: (required)	Date:
Windham, Maine		March 15, 2007

B. PROPERTY LOCATED WITHIN THE REGULATORY FLOODWAY

As the community official responsible for floodplain management, I hereby acknowledge that we have received and reviewed this request for a LOMA. We understand that this request is being forwarded to DHS-FEMA to determine if this property has been inadvertently included in the regulatory floodway. We acknowledge that no fill on this property has been or will be placed within the designated regulatory floodway. We find that the completed or proposed project meets or is designed to meet all of the community floodplain management requirements.

Community Comments:

Community Official's Name and Title: (*Please Print or Type*)		Telephone No.:
Roger Timmons, Community Development Director		(207)892-1901
Community Name:	Community Official's Signature (required):	Date:
Windham, Maine		March 15, 2007

FEDERAL EMERGENCY MANAGEMENT AGENCY

PAYMENT INFORMATION FORM

Community Name:

Project Identifier:

THIS FORM MUST BE MAILED, ALONG WITH THE APPROPRIATE FEE, TO THE ADDRESS BELOW OR FAXED TO THE FAX NUMBER BELOW.

Type of Request:

[X] MT-1 application
[ ] MT-2 application

FEMA
Fee Charge System Administrator
P.O. Box 22787
Alexandria, VA 22304
FAX (703) 317-3076

[ ] EDR application

FEMA Project Library
3601 Eisenhower Avenue
Alexandria, VA 22304
FAX (703) 751-7391

Request No.: _____ (if known)

Amount: $800

[X] INITIAL FEE* [ ] FINAL FEE [ ] FEE BALANCE** [ ] MASTER CARD [ ] VISA [X] CHECK [ ] MONEY ORDER

*Note: Check only for EDR and/or Alluvial Fan requests (as appropriate).

**Note: Check only if submitting a corrected fee for an ongoing request.

COMPLETE THIS SECTION ONLY IF PAYING BY CREDIT CARD

CARD NUMBER

				—				—				—			
1	2	3	4		5	6	7	8	9	10	11	12	13	14	15	16

EXP. DATE

		—	
Month			Year

_____ _____

Date Signature

NAME *(AS IT APPEARS ON CARD)*: _____
(please print or type)

ADDRESS: _____
(for your credit card receipt-please print or type) _____

DAYTIME PHONE: _____

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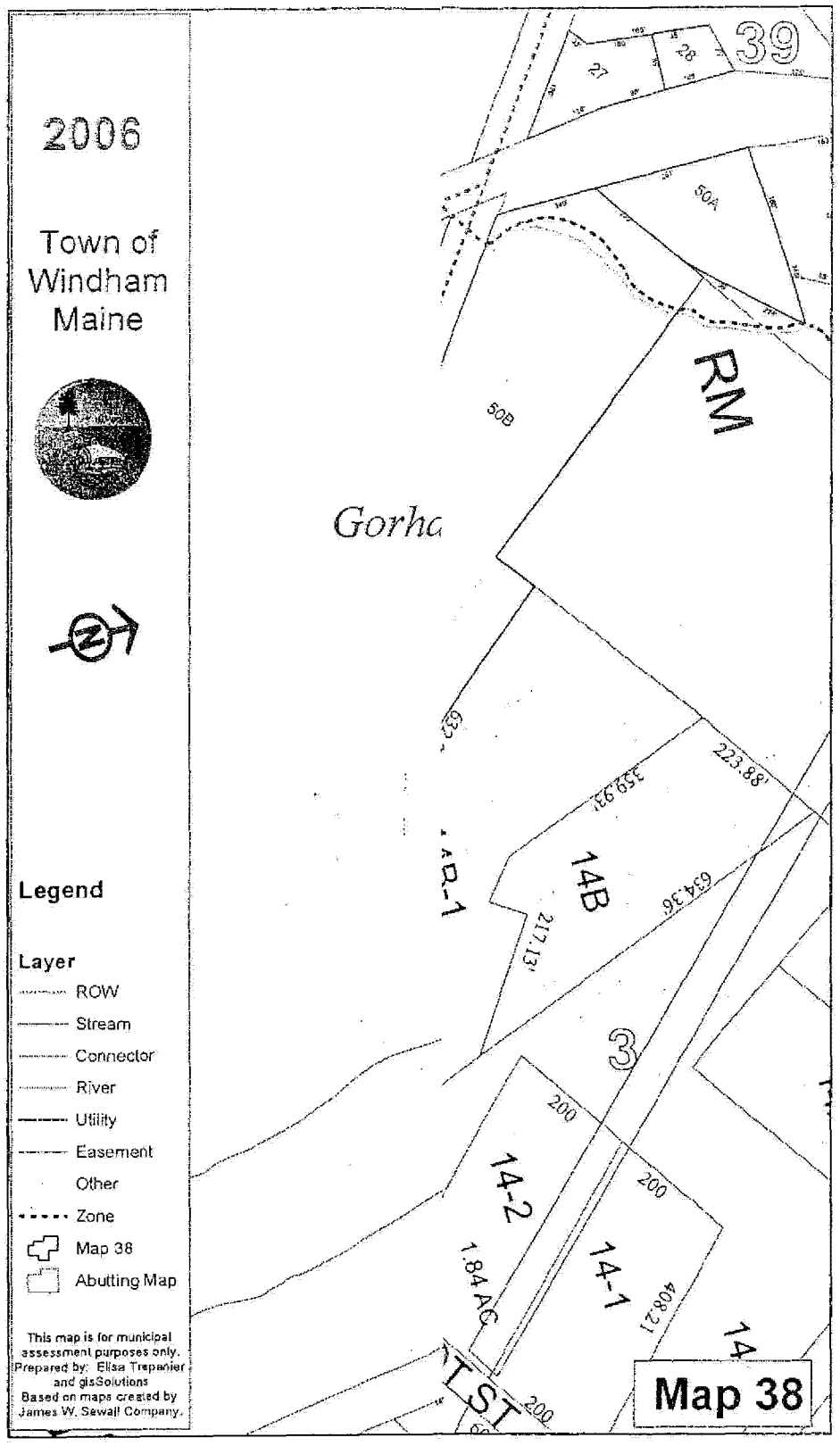

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25

KNOW ALL MEN BY THESE PRESENTS,

THAT, I, LAWRENCE J. KEDDY of Portsmouth in the County of Rockingham and State of New Hampshire, in consideration of One Dollar ($1.00) and other valuable consideration paid by SCOTT PAPER COMPANY (S. D. WARREN DIVISION), a Corporation organized and existing under the laws of the Commonwealth of Pennsylvania and having a place of business at 89 Cumberland Street in the City of Westbrook, County of Cumberland and State of Maine, the receipt whereof, I do herby Acknowledge, do hereby Remise, Release, Bargain, Sell and Convey and forever Quit-Claim unto the said Scott Paper Company (S. D. Warren Division), its successors and assigns forever, premises, rights and easements located in the Towns of Windham and Gorham in the County of Cumberland and State of Maine hereafter described:

First:

A certain lot or parcel of land with the buildings thereon and with part of the dam thereon situated at Little Falls in that part of the Town of Windham known as South Windham on the easterly side of Main Street, formerly known as the Old Gray Road and now designated State Route 202 and bounded and described as follows: (courses based on true meridian)

Beginning at a point on the easterly side of said Main Street at the southwest corner of the parcel of land formerly of Keddy Manufacturing Company, conveyed to Lawrence J. Keddy by deed of Park Corporation dated May 9, 1974 and recorded in the Cumberland County Registry of Deeds in Book 3545, Page 141, which point is further described as being one hundred seventy-five (175) feet southerly of the southwest corner of land now or formerly of Robert Miele et al; and which point is further described as being one hundred seventy-two and fifty-seven hundredths (172.57) feet southerly of the monument with the iron pin located on the easterly side of Main Street near the corner of said Miele lot.

Thence North 87° 13' East by line of said land formerly of Keddy Manufacturing Company three hundred fifty-five and eighty-three hundredths feet (355.83) feet, more or less, on a course which intersects the face of the westerly foundation of the main factory building on the land so conveyed by Park Corporation to said Keddy at a right angle thereto, at a point marked by a drill hole set;

Thence South 2° 47' East along the said face of the westerly foundation fifty-eight and seventy-four hundredths (58.74) feet to a corner of said foundation;

26

Thence North 87° 30' East by the face of the southerly foundation of said building a distance of thirty-four and seventy-two hundredths (34.72) feet to a point distant twenty-five (25) feet northeasterly from the center of the 12,100 volt electric transmission line which runs southeasterly from a point near said corner of said foundation;

Thence running twenty-five (25) feet distant northeasterly from and parallel with said center of said electric pole line South 57° 44' 10" East by another portion of the land conveyed to said Keddy by deed of Atlantic Mills, Inc. dated October 30, 1961 and recorded in said Registry of Deeds in Book 2641, Page 44, a distance of three hundred eighty-nine and sixty hundredths (389.60) feet, more or less, to a corner wholly within said parcel conveyed by said Park Corporation to said Keddy which corner is at the intersection of the lines parallel with and twenty-five feet (25) distant northeasterly and easterly of the existing transmission line running between the generating stations at Little Falls and Mallison Falls;

Thence on a course of South 11° 08' 30" East a distance of seventy and sixty-three hundredths (70.63) feet, more or less, to line of land conveyed to said Keddy by said deed of Atlantic Mills, Inc.;

Thence on the same course one hundred twenty-seven and 50/100 (127.50) feet, more or less, to the line of land conveyed to Mallison Corporation by deed of Cumberland Securities Corporation dated May 25, 1955 and recorded in said Registry of Deeds in Book 2232, Page 46;

Thence by line of said Mallison Corporation land westerly to the thread of the Presumpscot River;

Thence by the thread of the River northerly and westerly to a point in the southerly extension of the easterly side line of said Main Street;

Thence northerly by said extension and by the easterly side line of Main Street to the point of beginning; including herewith all right, title and interest of the Grantor in and to land extending to the center line of any streets or roads adjoining said premises.

Subject to a right-of-way for vehicles and pedestrians thirty (30) feet in width extending easterly from Main Street from the point of beginning above described along the northerly boundary first above described to the doorway located in the westerly foundation of the said main factory building (a distance of three hundred fifty-five and eighty-three hundredths (355.83 feet, more or less), with the right reserved to the Grantor, his heirs and assigns, to maintain and use on, in and over said right-of-way the existing door and stairs adjacent to said main factory building.

Subject also to existing rights of Central Maine Power Company or others to maintain transmission lines over and across said premises.

Reference is made to the deed from Atlantic Mills, Inc. to Lawrence J. Keddy dated October 30, 1961 and recorded in the Cumberland County Registry of Deeds in Book 2641, Page 44 and to the deed from Park Corporation to said Keddy dated May 4, 1974 and recorded in said Registry in Book 3545, Page 141.

Second:

A certain lot or parcel of land with any buildings and part of the dam

thereon situated at Little Falls in the Town of Gorham, bounded and described as follows: 27

Beginning at a point on the Easterly side of said Main Street at the Northwesterly corner of land now or formerly of Louis E. Brackett, et al;

Thence easterly by said Brackett land one hundred ninety-two (192) feet, more or less, to a corner;

Thence southerly by said Brackett land eighty-three (83) feet, more or less, to land now or formerly of George N. Sferes;

Thence easterly and southerly by said Sferes land to land of Eugene Hawkes;

Thence by Hawkes land easterly to the thread of the Presumpscot River;

Thence northerly and westerly by said thread to a point in the northerly extension of the easterly side line of said Main Street;

Thence southerly by said extension and by said easterly side line of Main Street to the point of beginning; including herewith all right, title, and interest of the Grantor in and to land extending to the center line of any streets or roads adjoining said premises.

Excepting and reserving the rights of the South Windham Public Library, or Trustees thereof, in buildings occupied by them and in the land on which they are erected, and the right of access thereto easterly from said Main Street.

Third:

All right, title and interest in any and all land which may lie westerly of Main Street in the Towns of Windham and Gorham, and which was conveyed by Robert Gair Co., Inc. to Cumberland Securities Corporation by deed dated March 7, 1940 and recorded in said Registry of Deeds, Book 1601, Page 95. Excepting, however, the premises and sewer right of way conveyed by Cumberland Securities Corporation to Julia L. Siciliano by deed dated April 29, 1941, recorded in said Registry of Deeds, Book 1637, Page 119, but conveying the flowage rights reserved to the Grantor therein. Excepting from this conveyance the parcel conveyed to the Inhabitants of the Town of Windham by deed of Lawrence J. Keddy dated November 29, 1961 and recorded in the said Registry of Deeds in Book 2646, Page 357, but conveying all rights reserved in said deed.

Also conveying to the Grantee, its successors and assigns, all the Grantor's right, title and interest in and to the bed of the said river and the right to use the waters of said river where the same adjoins all premises hereby conveyed, and all rights of flowage appurtenant to these premises. Reserving, however, to the said Lawrence J. Keddy, his heirs and assigns the right to use the waters of, and take water from, the Presumpscot River, where and if said waters are not within the premises herein conveyed, for cooling and processing purposes on other land of said Keddy, his heirs and assigns adjacent to the premises herein conveyed, and to discharge said waters, and any additional waters obtained from Public Water Supply used for cooling and processing purposes into the Presumpscot River in accordance with applicable Local, State and Federal Standards, and to maintain, repair and replace the existing closed circuit cooling pipe extending from said adjacent premises into the bed of the Presumpscot River, but in no event shall the Grantee herein be obligated to maintain or alter the flow of water in the Presumpscot River for the operation, maintenance, repair or replacement of said cooling pipe.

28

Also conveying to the Grantee, its successors and assigns that portion of the island sometimes called Little's Island which lies southerly of a line drawn from the monument with the iron near the southwest corner of land formerly of Robert Misle et al located on the easterly side of said Main Street and running on a course of North 89° West (True North) (the large oak tree mentioned in earlier deeds having long since been cut.)

Also conveying to the Grantee, its successors and assigns the right to maintain, repair and replace a structure on the building formerly of Park Corporation, later of Lawrence J. Keddy, for the purpose of supporting the 12,000 volt electric transmission line above mentioned.

Together with the right, in common with others so entitled, to pass and repass over, across and along the existing roadway, which starts on Depot Street near the line of land formerly of Lucy Hart and runs southerly and then easterly toward the land of Maine Central Railroad, then runs southerly, then westerly around the southerly end of the factory building to run between the factory building and the Presumpscot River, as a means of access to the electric transmission line and the supporting poles thereof near said River, and the right to retain, repair and replace in its present location one guy pole and anchors near the property line beside said existing roadway. Neither the Grantor nor the Grantee, their respective heirs, successors or assigns, shall be obligated to repair or maintain any portions of said roadway.

This conveyance is made subject, however, to the right to use, in common with the Grantor, his heirs and assigns, so much of said roadway as crosses premises herein conveyed.

The premises hereby conveyed are subject to the right and easement of the Central Maine Power Company, its successors and assigns, to repair, replace and maintain any and all of its transmission and distribution lines as are now located along and across said premises and the right of said Central Maine Power Company, its successors and assigns, to overflow and flood the above described premises as may be overflowed and flooded by means of its dam at Mallison Falls all as set forth in deed of Cumberland Securities Corporation to Atlantic Mills, Inc. dated January 29, 1954, recorded in said Registry of Deeds Book 2167, Page 245.

The above described premises are also conveyed subject to the covenants of the Grantor herein which are binding upon him, his heirs and assigns as to the use of water of the Presumpscot River which may be dammed up or stored, said covenants being more fully set forth in the said deed of Cumberland Securities Corporation to the Atlantic Mills, Inc. dated January 29, 1954.

The above described premises are also conveyed subject to an agreement respecting the height of the dam at Little Falls between E. I. DuPont De Nemours Powder Company and Androscoggin Pulp Company dated July 25, 1913 and recorded in said Registry of Deeds, Book 925, Page 176, to the extent said agreement may still be in effect.

Reference is made to the deed from Atlantic Mills, Inc. to Lawrence J. Keddy dated October 30, 1961 and recorded in the Cumberland County Registry of Deeds in Book 2641, Page 44 and, as to a small portion, the deed from Park Corporation to Lawrence J. Keddy dated May 9, 1974 and recorded in said Registry of Deeds in Book 3545, Page 141.

TO HAVE AND TO HOLD the same, together with all the privileges and appurtenances thereunto belonging to the said Scott Paper Company (S. D. Warren Division), its successors and assigns forever.

And the said Grantor does covenant with the said Grantee, its successors and assigns that he has not delivered any unrecorded instrument to any third party or parties (excluding the Grantee herein) conveying any interest in or encumbering the real estate and interest in real estate listed and described herein.

IN WITNESS WHEREOF, the said Lawrence J. Keddy, unmarried, has hereunto set his hand and seal this 18th day of October in the year of our Lord one thousand nine hundred and seventy-four.

Signed, Sealed & Delivered
in presence of

Lawrence J. Keddy (Seal)

STATE OF MAINE
CUMBERLAND, ss. October 18, 1974

Personally appeared the above named Lawrence J. Keddy and acknowledged the above instrument to be his free act and deed.

Before me,

Attorney-at-Law

OCT 18 1974
REGISTRY OF DEEDS, CUMBERLAND COUNTY, MAINE
Received at 11 01 AM, and recorded in
BOOK 3612 PAGE 25 Register

QUITCLAIM DEED WITH COVENANT

KNOW ALL PERSONS BY THESE PRESENTS, that LUMAS, INC., a company organized and existing under the laws of the State of Maine and having its principal place of business in the City of Portland, County of Cumberland and State of Maine, in consideration of One Dollar ($1.00) and other valuable consideration paid by SOUTH WINDHAM HOUSING CORPORATION, a corporation with a mailing address of 307 Cumberland Avenue, Portland, Maine 04101, the receipt whereof is hereby acknowledged, does hereby **REMISE, RELEASE, BARGAIN, SELL, CONVEY and QUITCLAIMS** unto the said **SOUTH WINDHAM HOUSING CORPORATION**, its successors and assigns forever, with **QUITCLAIM COVENANTS**, the following property in Windham, County of Cumberland and State of Maine, bounded and described as follows:

SEE EXHIBIT A ATTACHED HERETO AND INCORPORATED HEREIN BY REFERENCE.

WITNESS my hand and seal this 25th day of October 2005.

MAINE REAL ESTATE TAX PAID

Signed, sealed and delivered
in the presence of:

LUMAS, INC.

By: Scott Lalumiere
Its: President

STATE OF MAINE
Cumberland, ss.:

October 25, 2005

Personally appeared before me the above-named Scott Lalumiere President of Lumas, Inc. and acknowledged the foregoing instrument to be her free act and deed in her said capacity and the free act and Deed of Lumas, Inc.

~~Notary Public~~/Attorney-at-Law
Printed Name: Scott Herrick
My Commission Expires:

G:\Users\Mary Lou\Real Estate\Lumas\Sale to South Windham Housing Corp\Quitclaim Deed Lumas to SWHC.doc

EXHIBIT A
(1.20 acres)

A certain lot or parcel of land located on the southerly side of Depot Street and the easterly side of Route 202 in the Town of Windham, County of Cumberland, State of Maine, being more particularly bounded and described as follows:

BEGINNING at a 1-inch iron rod on the easterly right-of-way line of Route 202, said iron rod being the southwesterly corner of lands N/F of Dwayne and Irina St.Ours as recorded in Deed Book 15716, Page 107, Cumberland County Registry of Deeds (CCRD) and a northwesterly corner of the parcel herein described;

THENCE S80°55'00"E along the southerly line of said St.Ours 99.50 feet to a set rebar;

THENCE N15°46'30"E along the easterly line of said St. Ours 57.75 feet to a set rebar on the southerly right-of-way line of Depot Street;

THENCE S80°55'00"E along the southerly right-of-way line of Depot Street 89.50 feet to a 6"x6" granite monument;

THENCE S80°55'00"E continuing along the southerly right-of-way line of Depot Street 45.21 feet to a set rebar;

THENCE S89°07'00"E along the southerly right-of-way line of said Depot Street 13.24 feet to a set rebar. Said rebar being the northeasterly corner of a conveyance from Village at Little Falls, LLC to Lumas, Inc. of even or near date and the northwesterly corner of the remaining lands of Village at Little Falls, LLC;

THENCE S15°46'30"W along remaining lands of said Village at Little Falls, LLC and the westerly boundary of other land of Lumas, Inc. to be conveyed to the Village at Little Falls, LLC 249.42 feet to a set rebar on the northerly line of lands N/F of S.D. Warren Co. as recorded in Deed Book 3612, Page 25, CCRD;

THENCE N77°33'00"W along lands of said S.D. Warren 227 feet more or less to a point. Said point being on the easterly right-of-way line of Route 202. Said right-of-way line being established by a taking by MDOT from Lumas, Inc. as recorded in Deed Book 20705, Page 301 CCRD;

THENCE N13°56'30"E along the easterly right-of-way line of Route 202 60' feet more or less to a point;

THENCE N76°03'30"W along the easterly right-of-way line of Route 202 13' feet more or less to a point;

THENCE N13°56'30"E along the easterly right-of-way line of Route 202 115' feet more or less to the POINT OF BEGINNING.

The above described parcel contains 1.20 acres more or less.

Said set rebar are #5 rebar with plastic caps stamped "NCS PLS 1314"

Meaning and intending to describe a portion of lands conveyed from Presumpscot/Phoenix LLC and George Wood to Lumas, Inc. dated September 6, 2002 and recorded in Deed Book 18046, Page 32, CCRD.

Also conveying a portion of lands as previously owned and conveyed from George B. Wood to Village at Little Falls, LLC (now owned by Lumas, Inc.) dated September 22, 2005 and recorded in Deed Book 23183, Page 308, CCRD.

The above described parcel is shown on "Subdivision Plan Little Falls Landing" prepared for South Windham Housing Corporation by Northeast Civil Solutions, Inc., dated October 20, 2005.

The above described parcel is subject to an easement described in Deed Book 15464, Page 323, CCRD, said easement is to recognize existing encroachments of a building, located on the above referenced lands of Dwayne and Irina St.Ours, into the above described parcel.

Received
Recorded Register of Deeds
Oct 26,2005 12:18:31P
Cumberland County
John B OBrien

QUITCLAIM DEED WITH COVENANT

KNOW ALL PERSONS BY THESE PRESENTS, that LUMAS, INC., a company organized and existing under the laws of the State of Maine and having its principal place of business in the City of Portland, County of Cumberland and State of Maine, in consideration of One Dollar ($1.00) and other valuable consideration paid by **VILLAGE AT LITTLE FALLS, LLC**, a Maine limited liability company with a mailing address of 25 Pearl Street, Portland, Maine 04101, the receipt whereof is hereby acknowledged, does hereby **REMISE, RELEASE, BARGAIN, SELL, CONVEY and QUITCLAIMS** unto the said **VILLAGE AT LITTLE FALLS, LLC**, its successors and assigns forever, with **QUITCLAIM COVENANTS**, the following property in Windham, County of Cumberland and State of Maine, bounded and described as follows:

SEE EXHIBIT A ATTACHED HERETO AND INCORPORATED HEREIN BY REFERENCE.

WITNESS my hand and seal this 25th day of October 2005.

Signed, sealed and delivered
in the presence of:

LUMAS, INC.

By: Scott Lumiere
Its: President

STATE OF MAINE
Cumberland, ss.:

October 25, 2005

Personally appeared before me the above-named Scott Lumiere President of Lumas, Inc. and acknowledged the foregoing instrument to be his/her free act and deed in his/her said capacity and the free act and Deed of Lumas, Inc.

Notary Public/Attorney-at-Law
Printed Name:
My Commission Expires:

C:\Users\Mary Low\Real Estate\Lumas\Sale to South Windham Housing Corp\Quitclaim Deed Lumas to Village.doc

EXHIBIT A
(3087 SF Parcel)

A certain lot or parcel of land located on the southerly side of Depot Street in the Town of Windham, County of Cumberland, State of Maine, being more particularly bounded and described as follows:

BEGINNING at a set rebar on the southerly right-of-way line of Depot Street, said rebar being the northeasterly corner of lands N/F of Dwayne and Irina St.Ours as recorded in Deed Book 15716, Page 107, Cumberland County Registry of Deeds (CCRD);

THENCE S80°55'00"E along the southerly right-of-way line of said Depot Street 89.50 feet to a 6"x 6" granite;

THENCE S80°55'00"E continuing along the southerly right-of-way line of said Depot Street 45.21 feet to a set rebar;

THENCE S89°07'00"E along the southerly right-of-way line of said Depot Street 13.24 feet to a set rebar. Said rebar being the northeasterly corner of a proposed conveyance to Lumas Inc. then to South Windham Housing Corporation and the northwesterly corner of the remaining lands of Village at Little Falls, LLC;

THENCE S15°46'30"W along the easterly line of the said South Windham Housing Corporation and the westerly line of said Village at Little Falls, LLC 58.19 feet to a point. Said point being the on the southerly line of lands N/F of Village at Little Falls, LLC from George B. Wood as recorded in Deed Book 23183, Page 308 CCRD and said point being the TRUE POINT OF BEGINNING;

THENCE S83°02'00"E along the southerly line of the said Village at Little Falls, LLC 16.27 feet to a 6"x 6" granite. Said granite being the southeasterly corner of said Village at Little Falls, LLC and being on the westerly line of lands N/F of Village at Little Falls, LLC from Lumas, Inc. as recorded in Deed Book 22051, Page 1 CCRD;

THENCE S15°46'30"W along said lands of Village at Little Falls, LLC 192.79 feet to a point. Said point being the southwesterly corner of said Village at Little Falls, LLC and being on the northerly line of lands N/F of S.D. Warren Co. as recorded in Deed Book 3612, Page 25;

THENCE N77°33'00"W along the northerly line of said S.D. Warren Co. 16.10 feet to a set rebar;

THENCE N15°46'30"E through said lands of Lumas, Inc. as recorded in Deed Book 18046, Page 32 CCRD 191.23 feet to the POINT OF BEGINNING.

The above described parcel contains 3087 square feet (0.07 acres) more or less.

Said set rebar are #5 rebar with plastic caps stamped "NCS PLS 1314"

Meaning and intending to convey a portion of the land conveyed from Presumpscot/Phoenix LLC, and George B. Wood to Lumas, Inc. in a deed dated September 5, 2002 as recorded in the Cumberland County Registry of Deeds in Book 18046 on page 32.

Received
Recorded Register of Deeds
Oct 26,2005 12:16:13P
Cumberland County
John B OBrien

WARRANTY DEED

MAINE REAL ESTATE TAX PAID

JOSEPH KITTRELL, of Durham, Maine, for consideration paid, grants to HRC – VILLAGE AT LITTLE FALLS, LLC, a Maine limited liability company with a mailing address c/o Renee L. Lewis, Manager, 2 Market Street, Portland, Maine 04102, with Warranty Covenants, the following property located in Windham, County of Cumberland, State of Maine, described as follows:

SEE ATTACHED EXHIBIT A

Reference is made to the Warranty Deed from Merrill T. Laskey and Carmela P. Laskey to Joseph Kittrell dated September 6, 2001 and recorded in the Cumberland County Registry of Deeds in Book 16811, Page 99.

Witness our hands and seal this 5th day of April, 2006.

Signed, Sealed and Delivered
in the presence of

Witness

Joseph Kittrell

State of Maine
County of Cumberland

April 5, 2006

Then personally appeared the above named Joseph Kittrell and acknowledged the foregoing instrument to be his free act and deed.

Notary Public/Attorney at Law

printed name of notary or attorney

EXHIBIT A

A certain lot or parcel of land with the improvements thereon, situated in South Windham, Town of Windham, County of Cumberland and State of Maine, more particularly described as follows:

Situated on the Southeasterly side of what is now known as Depot Street and bounded Northwesterly by said Depot Street; bounded Southwesterly and Southeasterly by land formerly of Sebago Wood Board Company, and Northeasterly by land now or formerly owned by Maine Central Railroad Company.

Received
Recorded Register of Deeds
Apr 07,2006 12:36:24P
Cumberland County
John B OBrien

DEED IN LIEU OF FORECLOSURE

KNOW ALL PERSONS BY THESE PRESENTS, that **VILLAGE AT LITTLE FALLS, LLC**, a Maine limited liability company having its principal place of business in the City of Portland, County of Cumberland and State of Maine, in consideration of One Dollar ($1.00) and other valuable consideration, paid by **HRC – VILLAGE AT LITTLE FALLS, LLC**, a Maine limited liability company whose mailing address is 25 Pearl Street, Portland, Maine 04101, the receipt whereof does hereby acknowledge, does hereby quitclaim with covenant to HRC-Village at Little Falls, LLC, its successors and assigns, a certain lot or parcel of land with buildings thereon, situated in the Town of Windham, County of Cumberland, and State of Maine, and located at 7-9 Depot Road, Windham, Maine; further described on the attached Exhibit A.

The purpose of this Deed is to convey the above-described property to HRC-Village at Little Falls, LLC in lieu of foreclosure of a certain Mortgage, Security Agreement, Lease Assignment and Financing Statement from Village at Little Falls, LLC to Pioneer Capital Corporation dated November 3, 2004 and recorded in the Cumberland County Registry of Deeds in **Book 22051, Page 4**.

This Deed is made subject to the above-referenced Mortgage and said Mortgage shall survive this transfer and remains in place. This conveyance shall not act to merge the transferee's interest in the above-referenced real estate with the said Mortgage.

IN WITNESS WHEREOF, the said Village at Little Falls, LLC has caused this instrument to be signed and sealed by its Sole Member, Pioneer Capital Corporation, by Kenneth Ray, duly authorized, as of the 30th day of November, 2006.

Signed and Delivered
In the Presence of:

_____
Witness

VILLAGE AT LITTLE FALLS, LLC
by Pioneer Capital Corporation, Sole Member

By: _____
Kenneth Ray
Its President

STATE OF MAINE
Cumberland, ss.

November 30, 2006

Then personally appeared the above-named Kenneth Ray, President of Pioneer Capital Corporation, Sole Member of Village at Little Falls, LLC and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of said limited liability company.

Before me,

Lori Marie Sackel

Notary Public
Printed Name: Lori Marie Sackel
My Commission Expires: 8/27/2013

P:\MGC\CLIENTS\UBGH-FKNC\HRC-Village at Little Falls\DEED IN LIEU OF FORECLOSURE.doc

SEAL

EXHIBIT A
LEGAL DESCRIPTION

LAND ON DEPOT ROAD, WINDHAM, MAINE

A certain lot or parcel of land in the Town of Windham, County of Cumberland, and State of Maine and being more particularly bounded and described as follows:

BEGINNING at the northeasterly corner of land N/F of George Wood, Book 16601, Page 217, Cumberland County Registry of Deeds (CCRD).

THENCE S 89° 07' 00" E along the southerly side of Depot Road 281.81 feet to a 1-inch iron pipe;

THENCE N 73° 29' 00" E along the southerly side of Depot Road 35.83 feet to a point. Said point being the northwesterly corner of land N/F of Joseph Kittrell as recorded in Book 16811, Page 99 (CCRD);

THENCE S 15° 32' 00" E along the westerly line of lands of said Kittrell 141.00 feet to a point;

THENCE S 41° 27' 00" E along the southwesterly line of land of said Kittrell 72.00 feet to an 1-inch iron rod;

THENCE N 75° 49' 00" E along the southerly line of land of said Kittrell 148.08 feet to a 1-inch iron pipe. Said iron pipe being the on the westerly right-of-way line of land owned by Maine Central Railroad;

THENCE southerly along said westerly right-of-way line of Maine Central Railroad being a curve to the right 101.02 feet to a point. Said curve has a radius of 1881.86', Chord Length of 101.01', and a Chord Bearing of S 08° 51' 14" W;

THENCE S 10° 23' 30" W along said westerly right-of-way line of said Maine Central Railroad 812.42 feet to a point;

Thence S 73° 03' 30" W along said westerly right-of-way line of said Maine Central Railroad 50.00 feet to a iron rod;

THENCE S 00° 40' 40" E along said westerly right-of-way line of said Maine Central Railroad 172.46 feet to a 4"x 4" concrete monument. Said point being a northeasterly corner of lands N/F of S.D. Warren Company as recorded in Book 3612, Page 25 CCRD;

THENCE N 79° 36' 30" W along a northeasterly line of said land of S.D. Warren Company 67.13 feet to a 4: x 4: concrete monument;

THENCE N 03° 58' 30" E along a easterly line of said land of S.D. Warren Company 606.62 feet to a 4" x 4" concrete monument;

THENCE N 42° 33' 00" W along a northeasterly line of said land of S.D. Warren Company 389.60 feet to a point;

THENCE N 77° 50' 00" W along northeasterly line of said land of S. D. Warren Company 34.72 feet. Said point being easterly of the S.D. Warren Co. power plant;

THENCE N 12° 27' 00" E along a easterly line of said land of S.D. Warren Company 58.74 feet to a drill hole;

THENCE N 77° 33' 00" W along northerly line of said land of S.D. Warren Company 99.6 feet to a point. Said point being the southeasterly corner of the remaining land of Lumas, Inc. as recorded in Book 18046, Page 32 CCRD. Said remaining lands of Lumas are proposed to be conveyed to Avesta Corporation;

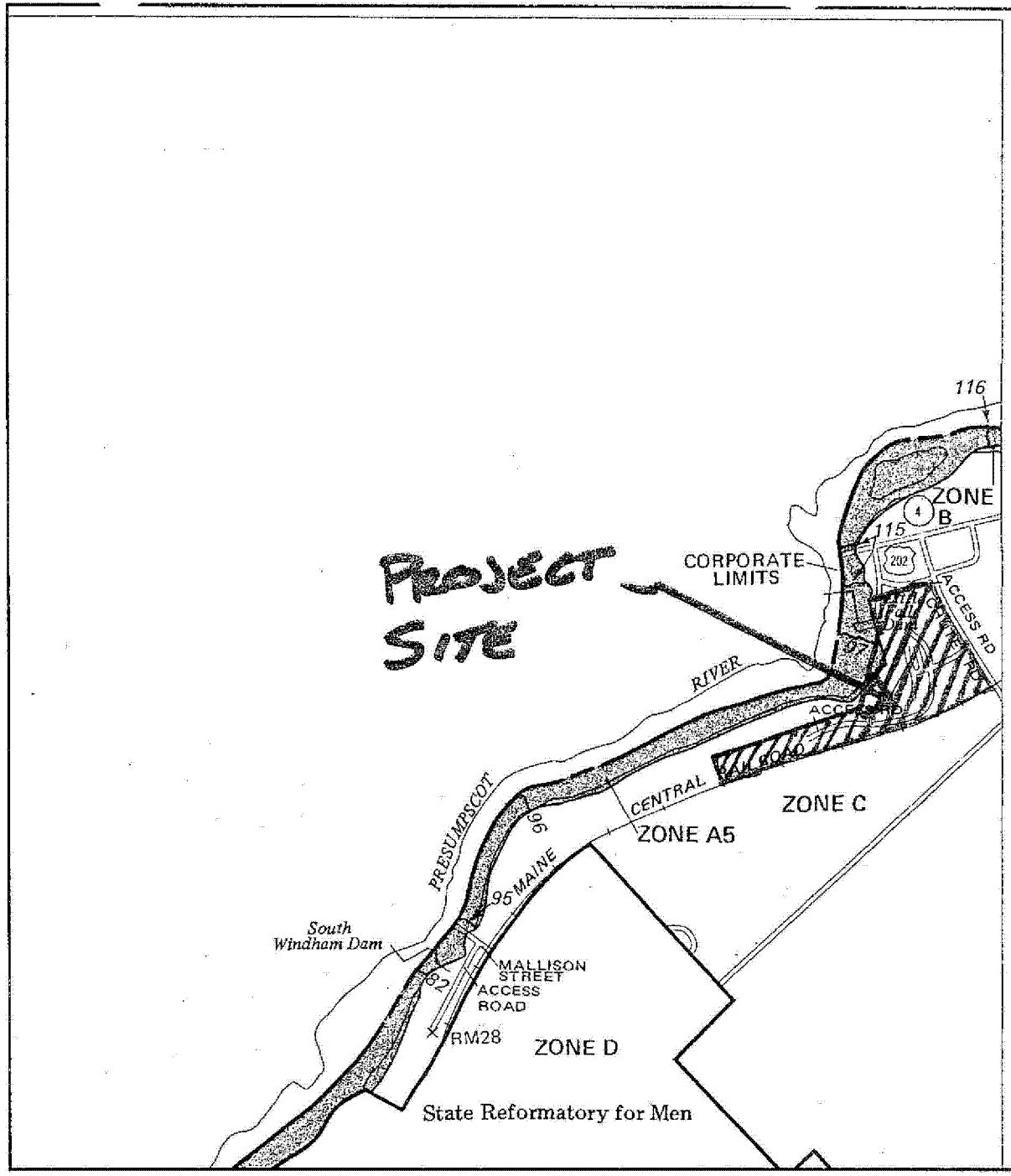
THENCE N 15° 46' 30" E along said land of Lumas 192.79 feet to a 6" x 6" granite monument. Said point being the southeasterly corner of land of said Wood;

THENCE N 15° 46' 30" E along the easterly line of said Wood 59.97 feet to the POINT OF BEGINNING.

The basis of bearing for the above described parcel is 1969 Magnetic North.

The above described premises are shown on Plan entitled "Existing Conditions Plan of Keddy Mill" by Northeast Civil Solutions, dated November 6, 2003, recorded in said Registry of Deeds in Plan Book 204, Page 78.

Received
Recorded Register of Deeds
Dec 01/2006 12:40:20P
Cumberland County
John B OBrien



APPROXIMATE SCALE

800 0 800 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

TOWN OF
WINDHAM, MAINE
CUMBERLAND COUNTY

PANEL 25 OF 35
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230189 0025 B

EFFECTIVE DATE:
SEPTEMBER 2, 1981

federal emergency management agency
federal insurance administration

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA F... ...se.fema.gov

LEGEND

EXISTING 100 YEAR FLOOD PLAIN BASED ON FLOOD INSURANCE STUDY (FIS) 100 YEAR FLOOD ELEVATIONS ABOVE AND BELOW THE DAM PRIOR TO VILLAGE AT LITTLE FALLS DEVELOPMENT.

PROPOSED 100 YEAR FLOOD PLAIN BASED ON FLOOD INSURANCE STUDY (FIS) 100 YEAR FLOOD ELEVATIONS ABOVE AND BELOW THE DAM AFTER THE VILLAGE AT LITTLE FALLS DEVELOPMENT.

ADDITIONAL 100 YEAR FLOOD PLAIN CREATED AFTER DEMOLITION OF THE MILL AND RIVERBANK RESTORATION

EXISTING MILL BUILDING (TO BE REMOVED)

THIS PLAN IS FOR REVIEW PURPOSES ONLY AND IS NOT INTENDED FOR CONSTRUCTION

Revisions:	By:	Date:	Changes:

PROJECT NUMBER: 29522 | ACAD FILE: 29522-FLOOD-DELIN | SCALE: 1" = 50' | DATE: MARCH 5, 2007

Drawing Name:
FLOOD PLAIN DELINEATION

Project Name and Location:
VILLAGE AT LITTLE FALLS
ROUTE 202, WINDHAM, MAINE

Prepared for: LITTLE FALLS, LLC
2 MARKET STREET, PORTLAND, MAINE 04101

VIL_RESP03904

SURVEYING ENGINEERING LAND PLANNING
Northeast Civil Solutions
INCORPORATED
153 US ROUTE 1, SCARBOROUGH, MAINE 04074
tel: 207.883.1000 800.882.2227 | fax: 207.883.1001 | e-mail: info@northeastcivilsolutions.com

0 50' 100' 200'

SHEET 1 OF 1

P:\LAND PROJECTS\2007\29522-MRC-VILLAGE AT LITTLE FALLS\PLANSET\29522-FLOOD-DELIN.DWG

SECTION 20

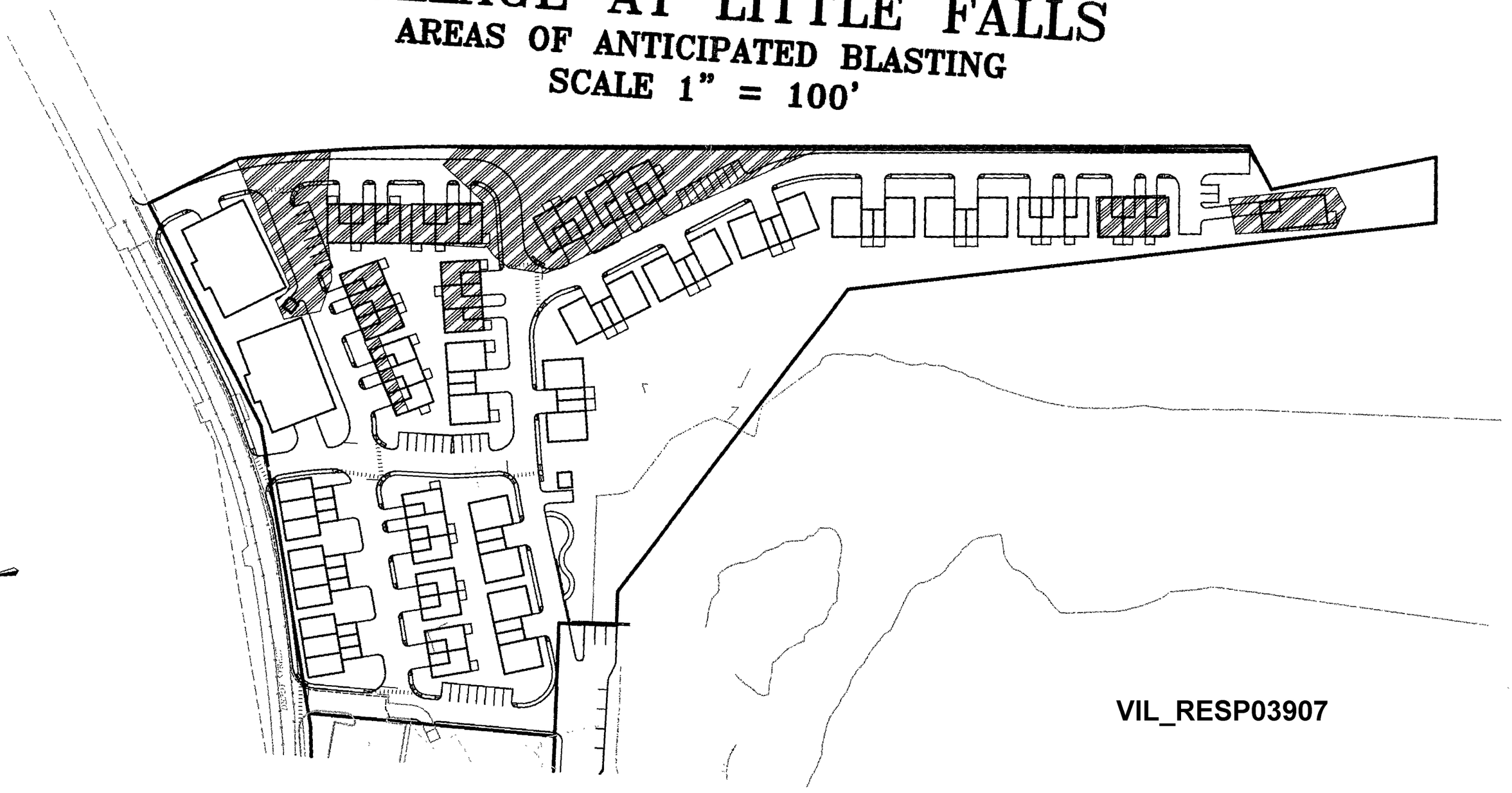
BLASTING

Blasting is anticipated for portions of this project. These areas are shown on the attached plan. The blasting assessment and proposed procedures are outlined in the attached Blasting Report from Wayne Flagg of Maine Drilling and Blasting.

VILLAGE AT LITTLE FALLS

AREAS OF ANTICIPATED BLASTING

SCALE 1" = 100'



VIL_RESP03907

Maine Drilling & Blasting

Blasting Plan

for

Village at Little Falls

South Windham, ME

Date: March 19, 2007

Prepared By: Maine Drilling & Blasting, Inc.

Eastern Division

P.O. Box 1140

Brunswick Road

Gardiner, ME 04345

Telephone: 207-582-2338

Fax: 207-582-8794

Wayne C. Flagg

Name

Eastern Division manager

Title

Maine Drilling and Blasting, Inc.
P.O Box 1140
423 Brunswick Ave.
Gardiner, ME 04345
207 582-2338
FAX 207 582-8794

Divisional Offices:
Maine 207 582-2338
Massachusetts 978 689-2983
New Hampshire 603 647-0299
Vermont/New York 802 479-3341

VIL_RESP03908

Table Of Contents

General

Maine Drilling & Blasting, Inc. considers safety as the priority during all phases of blasting operations. We are knowledgeable of and will follow all local, state and federal regulations related to transportation and use of explosives. The project specifications and conditions have been reviewed. Details of procedures for pre-blast surveys, explosives use, blast security, monitoring and documentation are enclosed.

Pre-Blast Surveys / Notifications

Pre-blast surveys will be offered to all property owners within 500 foot radius of the blast site. Appropriate notices will be given and appointments arranged for those owners who desire a survey. Pre-blast surveys will be conducted by Brian J. Skehan. Results of those surveys will be documented through video or still photograghs and appropriate narration or written reports.

Property owners within 500 feet of the blast area will be provided a blasting schedule. The blasting schedule shall contain, at a minumum - (1) Name, address, and telephone number of the operator, (2) Identification of the specific areas in which blasting will take place, (3) Dates and time periods when explosives are to be detonated, (4) Methods to be used to control access to the blasting areaa, and (5) Type and patterns of audible warning and all-clear signals to be used before and after blasting.

Blast Monitoring

All blasts will be monitored by a representative of Maine Drilling & Blasting, Inc. who has been properly trained in the setup and use of seismic monitoring equipment. At least one seismograph will be in use at all times. Placement of monitoring equipment will be at the nearest structure to the blast site. Maine Drilling & Blasting, Inc. monitoring equipment will consist of Instantel type seismographs. Details are enclosed. Results of blast monitoring will typically be available before the next blast, usually immediately following a blast. Results can be reviewed and modifications can be made to the blast design for the next blast if necessary.

Sequence of Blasting

All blasting operations will be strictly coordinated with Northeast Civil Solutions , engineers, and the South Windham Police and Fire Departments. Emphasis will be on the safe and efficient removal of the rock existing on this project without impact to surrounding structures. Blasts will be developed so as to create adequate relief which will minimize ground vibrations and offer the greatest protection possible to the surrounding structures.

Blasting Procedures

1. Blasting operations shall commence after 6:00 AM and cease before 7:00 PM, Monday through Saturday.

2. Blasting cannot be conducted at times different from those announced in the blasting schedule except in emergency situations, such as electrical storms or public safety required unscheduled detonation.

3. Warning and all-clear signals of different character that are audible within a range of one-half mile from the point of the blast shall be given. All persons within the permit area shall be notified of the meaning of the signals through appropriate instructions and signs posted.

4. Access to blasting area shall be regulated to protect the public from the effects of blasting. Access to the blasting area shall be controlled to prevent unauthorized entry before each blast and until the perimeter's authorized representative has determined that no unusual circumstances exist after the blast. Access to and travel in or through the area can then safely resume.

5. Areas in which charged holes are awaiting firing shall be guarded, barricaded and posted, or flagged against unauthorized entry.

6. All blasts shall be made in the direction of the stress relieved face previously marked out or previously blasted.

7. All stemming shall be minimum as specified using clean, dry 3/8" crushed stone.

8. Blasting mats shall be used as necessary to cover blasts

9. The Blasting Contractor shall insure that extra safety and judgment is exercised by his blaster to prevent the simultaneous blasting of numerous holes.

Blasting Mats

Blasting mats and backfill will be used to control excessive amounts of rock movement and flyrock when blasting in close proximity to structures. Placement and number of mats are typically determined by the blaster. Mats will be placed so as to protect all people, structures and natural resources on, or surrounding the blast site to prevent flyrock from entering. Rubber tire type blasting mats will be utilized on this project and will be approximately 12' x 12' in size; Rubber mat @ 12' x 12' 38 lbs./s.f. = 5,472 lbs./ea.

Blast Security and Warning Whistles

Each blast will be preceded by a security check of the affected area and then a series of warning whistles. Communications will be made with job site supervisors and local officials as required to ensure the safest possible operation. All personnel in the vicinity closest to the blast area will be warned. The warning whistles will follow the following sequence:

3 Whistles - 5 Minutes to Blast

2 Whistles - 1 Minute to Blast

1 Whistle - All Clear

The blast site will be examined by the blaster prior to the all clear signal to determine that it is safe to resume work. No blast will be fired until the area has been secured and determined safe.

Explosives

All explosives will be delivered to the job site on a daily basis. There will be no overnight storage. Only the amount of explosives required to perform the day's work will be brought to the site. All explosives will be stored in approved magazines when not in use.

Enclosed are Technical Data and MSDS sheets for the explosive products proposed for use on this project. Any one of, or a combination of these products may be in use at any one time on the site.

Blaster Qualifications

All Maine Drilling & Blasting, Inc. blasters on this job will be licensed in the State of Maine and have received various amounts of training in the safe use and handling of explosives. Additionally, Maine Drilling & Blasting, Inc. blasters are familiar with all OSHA Regulations, State Regulations, and Federal Regulations regarding construction site safety, including transportation, use, and handling of explosive materials. Weekly safety meetings are to be held on site by the Maine Drilling & Blasting, Inc. job foreman, with a record of that meeting returned to the Maine Drilling & Blasting, Inc. office.

Blasting Personnel

All blasting operations shall be conducted by experienced, trained and competent persons who understand the hazards involved. Persons working with explosive materials shall:

1. Have demonstrated a knowledge of, and a willingness to comply with, safety and security requirements.

2. Be capable of using mature judgment in all situations.

3. Be of good physical condition and not addicted to intoxicants, narcotics, or other similar type of drugs.

4. The person(s) responsible for the explosives shall possess current knowledge of the local, State and Federal laws and regulations applicable to his work.

5. The person(s) responsible for the explosives shall have obtained a Certificate of Competency or a license as required by State law.

Licenses and Permits

Maine Drilling & Blasting, Inc. is fully licensed and insured for the transportation, use, and handling of explosives. Evidence of insurance is available. Blasting permits will be applied for as required from the local authorities by the Maine Drilling & Blasting, Inc. Blaster/Foreman when blasting is about to begin.

Blast Vibration

Blast vibration will be monitored at the blast site, typically at the structure(s) closet to the blast site. Vibration limits will closely follow limits described in the project specifications and the State Regulations. Blast designs will be modified as required to stay within the guidelines and meet project schedules as well. Blasting operations will be modified accordingly when approaching buildings and utilities. Enclosed are preliminary vibration calculations based on known distances to the structures of concern and anticipated initial blast designs.

Ground vibration peak particle velocity limits shall not exceed:

Refer to Appendix B, Figure B-1, U.S. Bureau of Mines RI 8507

Airblast overpressure level not to exceed 129 peak dB (linear) two Hertz high -pass system.

Sound from blasting may not exceed the following limits at any protected location:

1 Blast per day shall not exceed 129 dbl

2 Blasts per day shall not exceed 124 dbl

3 Blasts per day shall not exceed 124 dbl

4 Blasts per day shall not exceed 123 dbl

Blast Reports

Enclosed is a sample of a Maine Drilling & Blasting, Inc. Blast Report. This report will be filled out for each blast and copies supplied as needed.

Typical Blast Design

Enclosed are what would be considered typical blast designs for this project. Hole sizes, depths, spacing and loading information is provided. These designs are to be considered a good starting point. Modifications are usually made, if necessary, following the first blasts to meet control and seismic considerations.

MAINE DRILLING AND BLASTING, INC.

Blast Design Plan
VILLAGE AT LITTLE FALLS
Description: OPEN ROCK
Mass Rock Areas.

APENDIX A.

Blast Design Plan

Est. # of Holes	30
Depth	10'
Hole Diameter	3.0"
Burden	5'
Spacing	6'
Holes per Delay	1
Pounds per Delay	15.86 lbs
Pounds per Hole	15.86 lbs
Total Est. Pounds	475.75 lbs
Powder Factor	1.43 lbs/CY
Decks	0

Stemming:	4.0'	Stemming Stone
Dry Load:	3.0'	PELLITE (ANFO)
Wet Load:	3.0'	EMGL 250 2.5-3
Booster:		1/3LB CAST PRIME

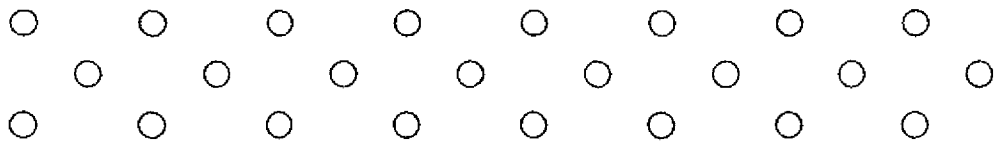
Blast Plan Notes
Seismographs To Be Placed At The Nearest Structur

Vibration Predication (formula based on Dupont Handbook)

Site Factor (k)	160	Ground Constant based on Site/Rock Conditions
Distance ft (d)	200	Distance to Structure
lbs per Delay (w)	15.86	lbs explosives per 8 milisecond Delay
Scaled Distance (sd)	50.22	(sd = d / square root of w)
Esimated PPV	0.30	(ppv = k * sd ^ - 1.6)

Typical for production work consistent holes 10' deep at 200' from a structure utilizing 3.0" diameter at a 5' by 6' pattern.

Plan View/Timing Design (please see attached timing diagrams)



VIL_RESP03914

M A I N E D R I L L I N G A N D B L A S T I N G, I N C.

Blast Design Plan
VILLAGE AT LITTLE FALLS
Description: OPEN ROCK
Mass Rock Areas.

APENDIX A.

Blast Design Plan

Est. # of Holes	30
Depth	10'
Hole Diameter	3.0"
Burden	5'
Spacing	6'
Holes per Delay	1
Pounds per Delay	15.86 lbs
Pounds per Hole	15.86 lbs
Total Est. Pounds	475.75 lbs
Powder Factor	1.43 lbs/CY
Decks	0

Stemming:	4.0'	Stemming Stone
Dry Load:	3.0'	PELLITE(ANFO)
Wet Load:	3.0'	EMGL 250 2.5-3
Booster:		1/3LB CAST PRIME

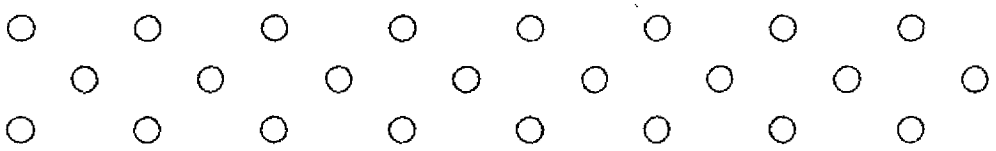
Blast Plan Notes
Seismographs To Be Placed At The Nearest Structur

Vibration Predication (formula based on Dupont Handbook)

Site Factor (k)	160	Ground Constant based on Site/Rock Conditions
Distance ft (d)	100	Distance to Structure
lbs per Delay (w)	15.86	lbs explosives per 8 milisecond Delay
Scaled Distance (sd)	25.11	(sd = d / square root of w)
Esimated PPV	0.92	(ppv = k * sd ^ - 1.6)

Typical for production work consistent holes 10' deep at 100' from a structure utilizing 3.0" diameter at a 5' by 6' pattern.

Plan View/Timing Design (please see attached timing diagrams)



VIL_RESP03915

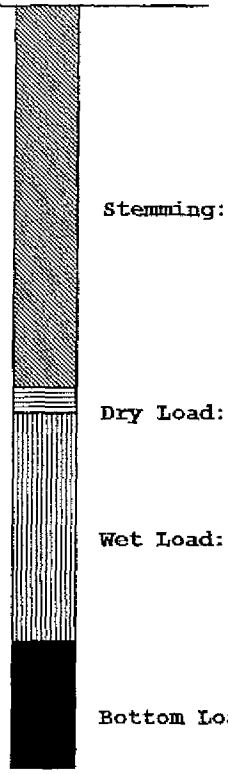
M A I N E D R I L L I N G A N D B L A S T I N G, I N C.

Blast Design Plan
VILLAGE AT LITTLE FALLS
Description: TRENCH
Footing & Trench Work

APENDIX A.

Blast Design Plan

Est. # of Holes	25
Depth	8'
Hole Diameter	3.0"
Burden	5'
Spacing	3'
Holes per Delay	1
Pounds per Delay	11.13 lbs
Pounds per Hole	11.13 lbs
Total Est. Pounds	278.29 lbs
Powder Factor	5.01 lbs/CY
Decks	0



Stemming:	4.0'	Stemming Stone
Dry Load:	.3'	PELLITE (ANFO)
Wet Load:	2.4'	EMGL 250 2.5-3
Bottom Load:	1.3'	DYNAMITE

Blast Plan Notes
Seismographs To Be Placed At The Nearest Structure

Vibration Predication (formula based on Dupont Handbook)

Site Factor (k)	160	Ground Constant based on Site/Rock Conditions
Distance ft (d)	100	Distance to Structure
lbs per Delay (w)	11.13	lbs explosives per 8 milisecond Delay
Scaled Distance (sd)	29.97	(sd = d / square root of w)
Esimated PPV	0.69	(ppv = k * sd ^ - 1.6)

Typical for production work consistent holes 8' deep at 100' from a structure utilizing 3.0" diameter at a 5' by 3' pattern.

Plan View/Timing Design (please see attached timing diagrams)

○ ○ ○ ○ ○ ○ ○ ○

VIL_RESP03916

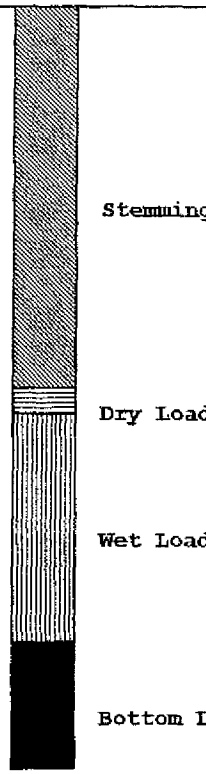
M A I N E D R I L L I N G A N D B L A S T I N G, I N C.

Blast Design Plan
VILLAGE AT LITTLE FALLS
Description: TRENCH
Footing & Trench Work

APENDIX A.

Blast Design Plan

Est. # of Holes	25
Depth	8'
Hole Diameter	3.0"
Burden	5'
Spacing	3'
Holes per Delay	1
Pounds per Delay	11.13 lbs
Pounds per Hole	11.13 lbs
Total Est. Pounds	278.29 lbs
Powder Factor	5.01 lbs/CY
Decks	0



Stemming:	4.0'	Stemming Stone
Dry Load:	.3'	PELLITE (ANFO)
Wet Load:	2.4'	EMGL 250 2.5-3
Bottom Load:	1.3'	DYNAMITE

Blast Plan Notes
Seismographs To Be Placed At The Nearest Structure

Vibration Predication (formula based on Dupont Handbook)

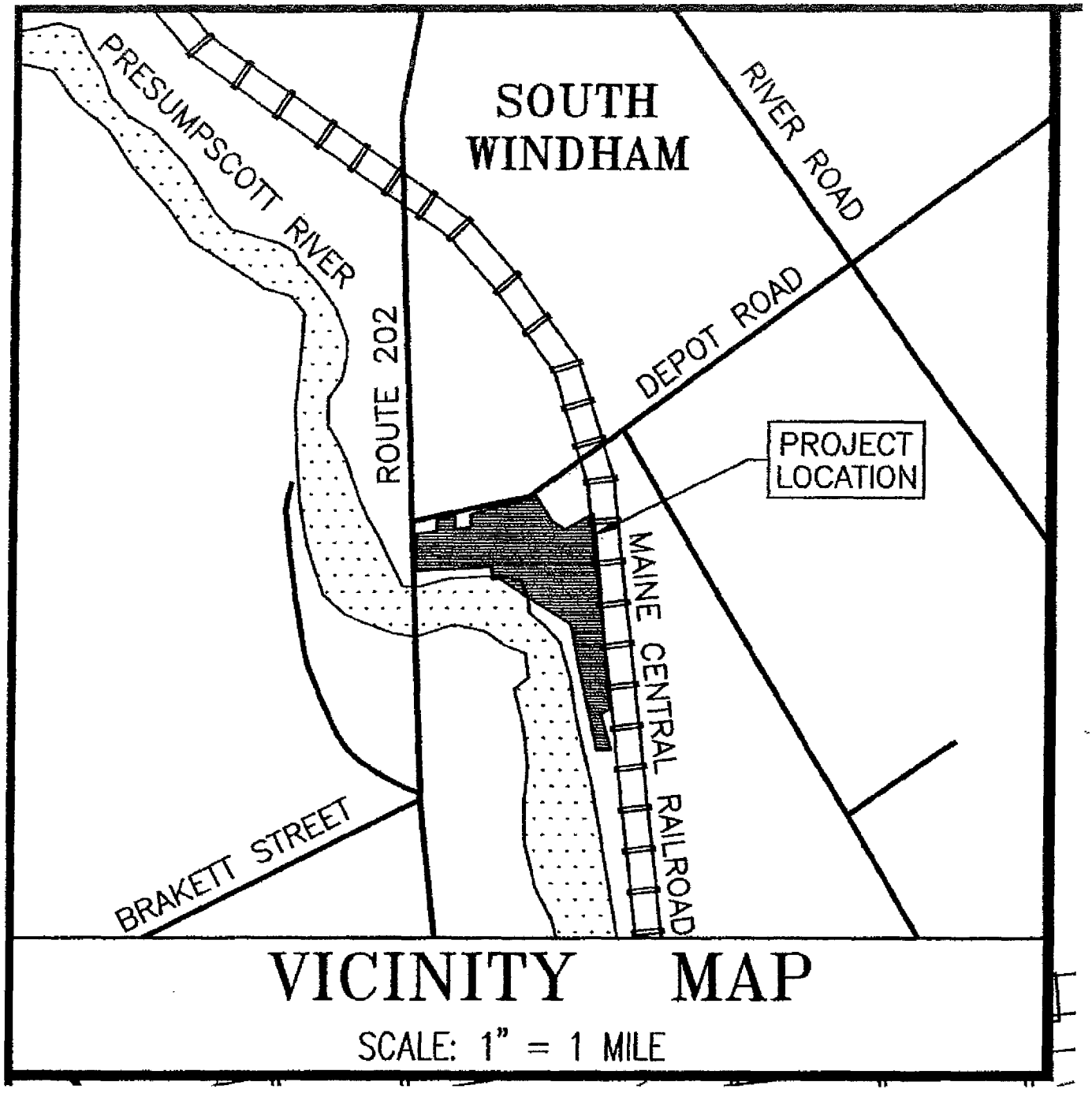
Site Factor (k)	160	Ground Constant based on Site/Rock Conditions
Distance ft (d)	200	Distance to Structure
lbs per Delay (w)	11.13	lbs explosives per 8 milisecond Delay
Scaled Distance (sd)	59.95	(sd = d / square root of w)
Esimated PPV	0.23	(ppv = k * sd ^ - 1.6)

Typical for production work consistent holes 8' deep at 200' from a structure utilizing 3.0" diameter at a 5' by 3' pattern.

Plan View/Timing Design (please see attached timing diagrams)

○ ○ ○ ○ ○ ○ ○ ○

VIL_RESP03917



VICINITY MAP

SCALE: 1" = 1 MILE

VIL_RESP03918

Maine Drilling & Blasting

DANA A. LAWRENCE
46 FORRESTER LANE
WEST GARDINER, MAINE 04345

EMPLOYMENT: Blaster with over 14 years experience, has been with Maine Drilling & Blasting for 14 years.

EXPERIENCE:

Contractor	Location	Size of Job
Wenworth by the Sea	Newcastle, NH	$ 114,500
Fleet Construction	Smithfield, RI	$ 251,400
R. J. Grondin	Augusta, ME	$1,100,000

STATES LICENSED IN AND LICENSE NUMBERS:

New Hampshire 1151, Rhode Island 37

Maine Drilling and Blasting, Inc.
P.O. Box 1140
Brunswick Road
Gardiner, ME 04345
207 582-2338
Fax 207 582-8794

Divisional Offices:
Maine 207 582-2338
Massachusetts 508 689-2983
New Hampshire 603 647-0299
Vermont/New York 802 479-3341

Friday, March 17, 2000

An Equal Opportunity Employer

DAN A LAWRENCE

Calibration Certificate

Part Number:	712A0101
Description:	DS477 BM II MIC 2-250Hz
Serial Number:	2400 Calibrated with Geo #2462
Calibration Date:	October 17, 2006
Calibration Equipment:	714J7401

Instantel certifies that the above product was calibrated in accordance with the applicable Instantel procedures. These procedures are part of a quality system that is certified to the ISO9001:2000 quality standard, and are designed to assure that the product listed above meets or exceeds Instantel specifications.

Instantel further certifies that the measurement instruments used during the calibration of this product are traceable to the National Institute of Standards and Technology; or National Research Council of Canada. Evidence of traceability is on file at Instantel and is available upon request.

The environment in which this product was calibrated is maintained within the operating specifications of the instrument.

Please note that the sensor check function is intended to check that the sensors are connected to the unit, installed in the proper orientation and sufficiently level to operate properly. This function should not be confused with a formal calibration, which requires the sensors be checked against a reference that is traceable to a known standard. Instantel recommends that products be returned to Instantel or an authorized service and calibration facility for annual calibration.

Calibrated By: Martin Hogue

Instantel

Maine Drilling & Blasting

TIMOTHY HANLEY
BLASTER OR FOREMAN ON THE FOLLOWING PROJECTS:

H. E. Sargent Stillwater, ME Job location: Alexander, ME	4,800 c.y.
Dicenzo Construction Calais, ME Job location: Eastport, ME (sewer)	3,800 c.y.
Dicenzo Construction Calais, ME Job location: Woodland, ME (pipeline)	3 miles lg.
Foss & Sons Danforth, ME Job location: Houlton, ME (footing around bldg.)	380 c.y.
Pelletier Construction Madawaska, ME Job location: Presque Isle, ME (shopping mall)	2,500 c.y.
Shaw Brothers Gorham, ME Job location: Standish, ME (shopping mall)	3,300 c.y.

Seismograph experience
Attended ICI Blasting Seminars in Dec. 1993 and April 1994
Licensed in NH, MA and VT

Maine Drilling and Blasting, Inc.
P.O. Box 1140
Brunswick Road
Gardiner, ME 04345
207 582-2338
FAX 207 582-8794

Divisional Offices:
Maine 207 582-2338
Massachusetts 508 689-2983
New Hampshire 603 647-0299
Vermont/New York 802 479-3341

Tim Hanley

Calibration Certificate

Part Number: 712A0102
Description: DS-477 BM II MIC 2-250Hz
Serial Number: 1403
Calibration Date: October 27, 2006
Calibration Equipment: 718A1501

Instantel certifies that the above product was calibrated in accordance with the applicable Instantel procedures. These procedures are part of a quality system that is certified to the ISO9001:2000 quality standard, and are designed to assure that the product listed above meets or exceeds Instantel specifications.

Instantel further certifies that the measurement instruments used during the calibration of this product are traceable to the National Institute of Standards and Technology; or National Research Council of Canada. Evidence of traceability is on file at Instantel and is available upon request.

The environment in which this product was calibrated is maintained within the operating specifications of the instrument.

Please note that the sensor check function is intended to check that the sensors are connected to the unit, installed in the proper orientation and sufficiently level to operate properly. This function should not be confused with a formal calibration, which requires the sensors be checked against a reference that is traceable to a known standard. Instantel recommends that products be returned to Instantel or an authorized service and calibration facility for annual calibration.

Calibrated By: Eric Roux

Instantel

BLASTING ON THIS SITE IS UNDER THE CONTROL OF

Maine Drilling & Blasting

All employees & visitors of this site are to follow the instructions of Maine Drilling & Blasting personnel concerning blast area access and evacuation.

NOTICE OF BLAST
IS GIVEN BY THE FOLLOWING SIGNALS:

3 Whistles - 5 minutes to BLAST

2 Whistles - 1 minute to BLAST

1 Whistle - ALL CLEAR

In the event of an emergency contact:

1) Local Fire and Rescue Department

2) Site Owner/Operator

3) Safety Engineer Maine Drilling & Blasting:

VIL_RESP03923

Blastmate® III

Full-Featured, Advanced Vibration and Overpressure Monitor

Range of Applications:

- Blast-monitoring for compliance
- Near-field blast analysis
- Pile driving
- Construction activity
- Demolition activity
- Heavy transportation
- Bridge monitoring
- Structural analysis
- Underwater blast monitoring
- 4 or 8 channel data aquisition
- Remote monitoring - Auto Call Home™

Consultants, engineers and contractors the world over recognize the **Instantel® Blastmate® III** vibration and overpressure monitor as the most versatile and most reliable full featured monitor available. It provides all of the industry-leading features of the **Instantel Minimate® Plus** monitor, conveniently packaged with a full keyboard and a high-resolution printer. This allows you to setup, add notes and print complete event reports in the field, without a computer.

Versatile

With standard features like the **Instantel Histogram Combo™** monitoring mode, zero dead-time between events, and flexible sample rates up to 65,000 S/s, the **Blastmate III** system provides you with control and confidence to monitor reliably in any situation. For added versatility, you have the option to add 4 more channels and extra memory, providing two complete standard monitors in a single package.

For more demanding monitoring applications, the **Instantel Blastware® Advanced Module** software provides the capability to monitor a broad selection of vibration and overpressure sensors, as well as sensors for related structural and environmental measurements. Monitor vibration, ambient environmental conditions, and the movement of structural cracks, all at the same time, all using the same **Blastmate III** monitor.

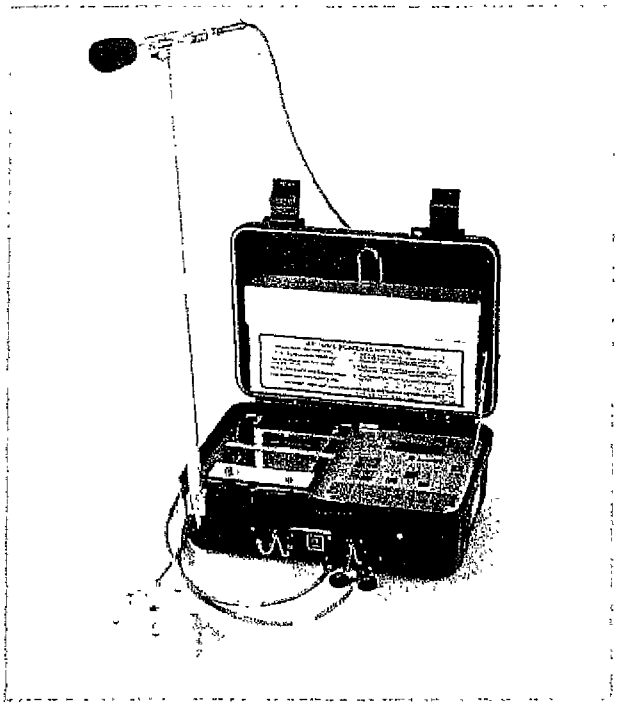
Easy to use

The features and versatility of the **Blastmate III** monitor set it apart, but the fact that it is also easy to use makes it truly revolutionary. The dedicated single use function keys, backlit LCD and simple menu-driven operation make setup and operation quick and easy, even for inexperienced personnel.

Tough

The **Blastmate III** monitor has been built to survive, with a fully sealed top panel, non-corrosive industrial grade connectors and sealed electronics, all packed in a rugged, water-resistant case.

Blastmate III - Reliability and versatility for any monitoring application.



Key Features

- Fast high-resolution thermal printer for event reports in the field without the need for a computer.
- Full keyboard simplifies entry of job-specific notes and information.
- Dedicated function keys and intuitive menu-driven operation enable quick and easy setup.
- **Histogram Combo** mode allows capture of full waveform records while recording in histogram mode.
- Sample rates from 1,024 to 16,000 S/s per channel - up to 65,000 S/s available on a single channel.
- Available 8-channel option allows for 2 standard triaxial geophones and 2 microphones to be used on a single **Blastmate III** monitor.
- Continuous monitoring means zero dead time, even while the unit is processing
- Any channel can be matched to a wide variety of sensors - geophones, accelerometers, or hydrophones.

Instantel

VIL_RESP03924

Blastmate® III

General Specifications	Blastmate III
Channels	Microphone and Triaxial Geophone or 4 independent user-configurable channels (two Microphones and two Triaxial Geophones or 8 independent channels with optional 8-channel upgrade)
Vibration Monitoring (with Standard Triaxial Geophone)	
Range	Up to 254 mm/s (10 in/s)
Resolution	0.127 mm/s (0.005 in/s) or 0.0159 mm/s (0.000625 in/s) with built-in preamp
Accuracy (ISEE / DIN)	+/- 5% or 0.5 mm/s (0.02 in/s), whichever is larger, between 4 and 125 Hz / DIN 45669-1 standard
Transducer Density	2.13 g/cc (133 lbs/ft³)
Frequency Range (ISEE / DIN)	2 to 250 Hz, within zero to -3 dB of an ideal flat response / 1 to 315 Hz
Maximum Cable Length (ISEE / DIN)	75 m (250 ft) / 1,000 m (3,280 ft)
Air Overpressure Monitoring	
Weighting Scales	Linear or A-weight
Linear Range	88 to 148 dB (500 Pa (0.072 PSI) Peak)
Linear Resolution	0.25 Pa (0.0000363 PSI)
Linear Accuracy	+/- 10% or +/- 1 dB, whichever is larger, between 4 and 125 Hz
Linear Frequency Response	2 to 250 Hz between -3 dB roll off points
A-weight Range	50 to 110 dBA
A-weight Resolution	0.1 dBA

Record Modes	Manual, Single-shot, Continuous
Seismic Trigger	0.125 to 254 mm/s (0.005 to 10 in/s)
Acoustic Triggers	
Linear	100 to 148 dB
A-weight	55 to 110 dBA
Sample Rate	1,024 to 16,000 S/s per channel (independent of record time), up to 65,000 S/s in single-channel mode with advanced software (maximum 8,000 S/s per channel for 8 channels)
Record Stop Mode	Fixed record time, **Instantel® AutoRecord™** record stop mode
Record Time	1 to 100 seconds (programmable in one-second steps) or 500 seconds plus 0.25 seconds pre-trigger
AutoRecord Time	Auto window programmable from 1 to 9 seconds, plus a 0.25 second pre-trigger. Event is recorded until activity remains below trigger level for duration of auto window, or until available memory is filled.
Cycle Time	Recording uninterrupted by event processing - No dead time
Storage Capacity	
Full Waveform Events	300 one-second events at 1,024 S/s sample rate (1,500 event capacity with optional memory upgrade)
Event Summaries	1,750 (8,750 event capacity with optional memory upgrade)

Record Modes	**Histogram** and **Instantel Histogram Combo™** (monitor captures triggered waveforms while recording in Histogram mode)
Recording Interval	2, 5 or 15 seconds; 1, 5 or 15 minutes
Storage Capacity	46,656 intervals - 3 days at 5-second intervals or 102 days at 15 minute intervals (with memory upgrade - 15 days at 5-second intervals or 540 days at 15 minute intervals)

Dimensions	269 x 355 x 165 mm (10.6 x 14.0 x 6.5 in)
Weight	6.4 kg (14 lbs)
Battery	Rechargeable 6 V sealed gel cell - capacity for 30 days of continuous monitoring
User Interface	63 domed tactile keys including full keyboard and dedicated keys for common functions
Display	4-line x 20 character, high contrast, backlit LCD with online help
Printer	High resolution thermal plotter
PC Interface	RS-232
Auxillary Inputs and Outputs	External Trigger, Remote Alarm, coordinate download from GPS
Environmental	
Printer/LCD Operating Temperature	-10 to 50°C (14 to 122°F)
Electronics Operating Temperature	-20 to 60°C (-4 to 140°F)
Remote Communications	Compatible with Telephone, GSM, Cellular, RF, Satellite, Short-haul modems, and Ethernet® device servers. Automatically transfers events when they occur through **Instantel Auto Call Home™** feature.
Additional Features	Monitor start/stop timer

Corporate Office:
309 Legget Drive,
Ottawa, Ontario K2K 3A3
Canada

US Office:
808 Commerce Park Drive,
Ogdensburg, New York 13669
USA

Toll Free: (800) 267 9111
Telephone: (613) 592 4642
Facsimile: (613) 592 4296
Email: sales@instantel.com

Instantel

7148053 Rev 04 – Product Specifications are Subject to Change

VIL_RESP03925

Maine Drilling & Blasting

Blast Report

MSHA ID# R15

Job Number_____ Name of Company _____ Pre Shift Insp. Time_____

Address_____ Stone Weight(t/yd) _____ Post Shift Insp. Time_____

Date _____ Shot No._____ Time_____ Operation_____ Pick Ticket_____

Hole No.	Water Depth	Burden	Spacing	Hole Depth	Tons/Yards Per Hole	Size	Size	Size	Size	Size	Size	Total Pounds Per Hole
Totals												

Height of Face_____ Any Angle Holes_____ Was Face Bermed_____ Hole Size_____ Sub Drilling_____

Type of Detonator_____ Weather Conditions_____ Wind Direction / Speed_____mph

Blast Direction and Location_____

Distance to Nearest: Structure_____ Highway or Railroad_____ Overhead Utilities_____ Underground Utilities_____

Type of Cover Used_____ Type of Terrain_____ Type of Rock Blasted (Geology)_____

Other Hazards_____ Other Precautions_____

Max Holes per Delay_____ Max Pounds per Delay_____ Powder Factor_____

Scale Distance_____ Predicted PPV_____ K Factor_____

(SD = D / W ^ .5) (PPV = K x SD ^ -1.6) (K = PPV x SD ^ 1.6)

Customers Supt _____ Crew Members_____

ıster_____ Signature_____ License No._____

VIL_RESP03926

MDB003 9/06

Sketch of Blast and Distance to Nearest Structures, Stations, Roadways, Landmarks and Seismograph Locations. *(Not to Scale)*

Include ALL Seismograph Locations With Address and Distance

Shot Video Taped? YES / NO

Bore Tracked? YES / NO

Laser Profile? YES / NO

Identify North

Identify Bench Mark Reference Location

Seismograph Data

Seismograph Operator_____

Seismograph #_____ PPV / dB_____

Seismograph #_____ PPV / dB_____

Seismograph #_____ PPV / dB_____

Timing

Hole to Hole Timing_____ms

Row to Row Timing_____ms.

Typical Holes

OverBurden_____ft.

Stemming_____ft.

Dry Load_____ft.

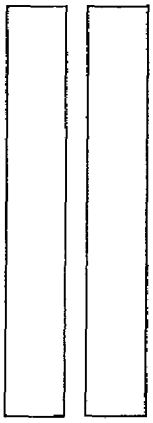
Type_____

Wet Load_____ft.

Type_____

Bottom Load_____ft

Type



_____Bench Elevation

_____Floor Elevation

THIS FORM MUST BE FILLED OUT COMPLETELY

Rev. 9/06

VIL_RESP03927

APPENDIX B.-ALTERNATIVE BLASTING LEVEL CRITERIA

Safe blasting vibration criteria were developed for residential structures, having two frequency ranges and a sharp discontinuity at 40 Hz (table 13). There are blasts that represent an intermediate frequency case, being higher that the structure resonance (4 to 12 Hz) and lower that 40 Hz. The criteria of table 13 apply equally to a 35-Hz and a 10-Hz ground vibration, although the responses and damage potentials are very much different.

Using both the measured structure amplifications (fig. 39) and damage summaries (figs. 52 and 54), a smoother set of criteria was developed. These criteria have more severe measuring requirements, involving both displacement and velocity (fig. B-1).

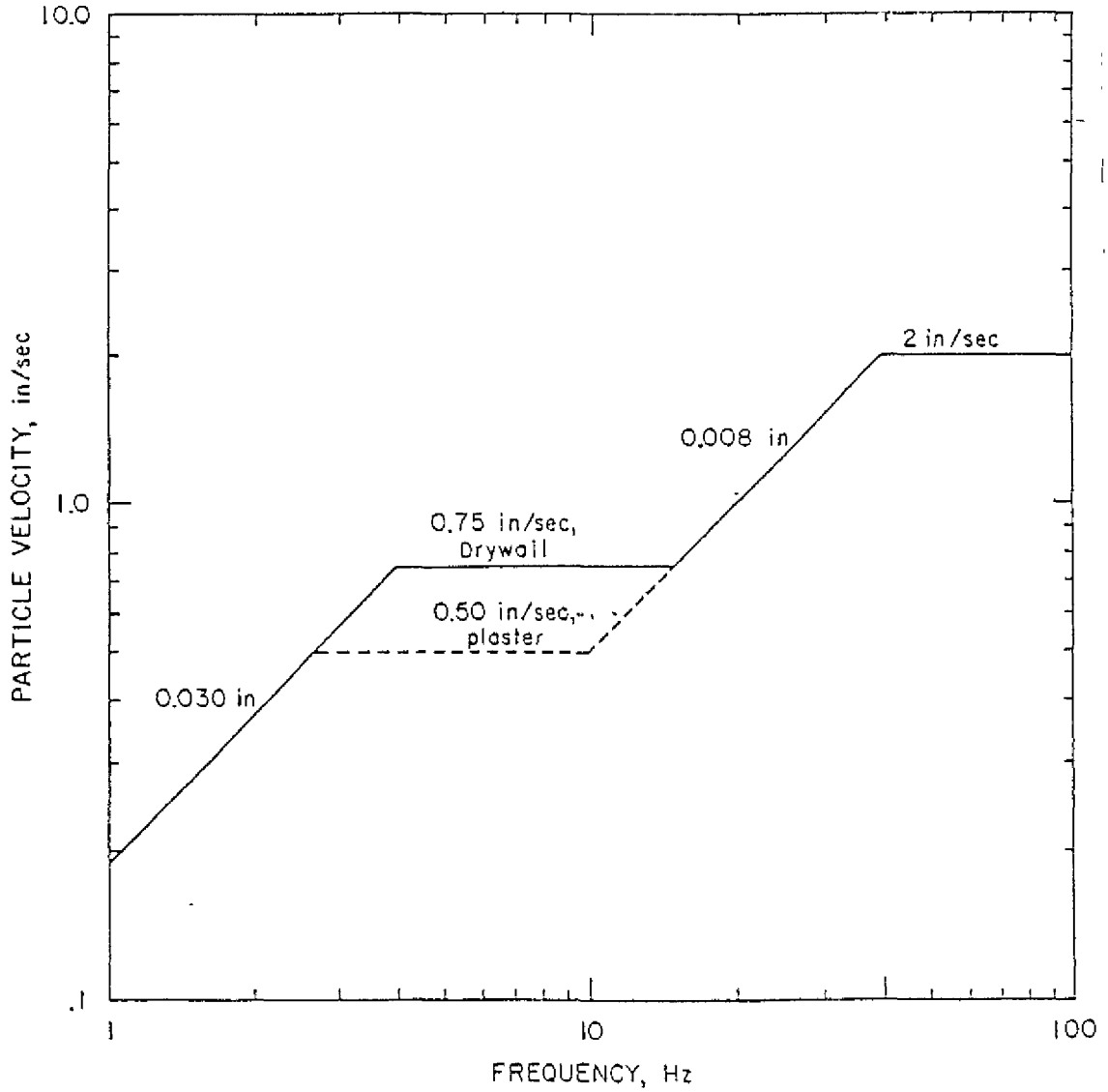


Figure B–1.—Safe levels of blasting vibration for houses using a combination of velocity and displacement.

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER: Mining Services International, Inc.
8805 S. Sandy Parkway
Sandy, Utah 84070-6408

EMERGENCY PHONE NUMBER: (801)233-6000 (MSI) or (800)424-9300 (CHEMTREC)

TRADE NAME: EMGEL 250

CAS NUMBER: N/A

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

		Exposure Limits (mg/m³ unless noted)		% by Wgt
Component	CAS No.	ACGIH TLV	OSHA PEL	Typical
Ammonium Nitrate	6484-52-2	N/A	N/A	50 - 53
Calcium Nitrate	10124-37-5	N/A	N/A	26 - 28
Alumunum	7429-90-5	10	N/A	4 - 6

SECTION 3 - HAZARDS IDENTIFICATION

US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined to be hazardous.

EFFECTS OF OVEREXPOSURE: Respiratory irritation, dizziness, nausea, vomiting, tachycardia. Prolonged, repeated skin contact may result in skin irritation or more serious skin disorders. Toxic effects are unlikely to occur if good personal hygiene is practiced.

EMERGENCY RESPONSE DATA: Light gray in color, in a white polyethylene casing or a woven polypropylene shot bag.

DOT ERG No. - 112

SECTION 4 - FIRST AID MEASURES

EFFECTS OF OVEREXPOSURE: UNKNOWN

EMERGENCY AND FIRST AID PROCEDURES:

Inhalation - Remove to a well ventilated area. If breathing difficulties persist seek medical help.

Ingestion - Do not induce vomiting. Drink large amounts of water or milk. Give liquid activated charcoal and seek medical attention.

Skin - Wash effected area with soap and rinse with large amounts of water. Launder contaminated clothing before reuse.

Eyes - Flush with copious amounts of clean or buffered water for at least 15 minutes. Seek medical attention immediately.

SECTION 5 - FIRE-FIGHTING MEASURES

FLASH POINT: Not Established **LEL:** Not Available

EXTINGUISHING MEDIA: Water - Deluge with water to cause a mass cooling.

UNUSUAL FIRE & EXPLOSION HAZARDS: System contains its own oxygen and fuel. May explode when subject to extreme heat or shock. Will release NO_x

SPECIAL FIRE FIGHTING PROCEDURES: DO NOT FIGHT AN ESTABLISHED FIRE. Clear area and allow to burn out.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Gather up spilled cartridges and wash any contaminated area with water.

WASTE DISPOSAL METHOD:

Place down a blast hole prior to detonation; to be utilized as part of the blast. May be burned in a shallow layer on barren ground in accordance with federal, state and local regulations.

SECTION 7 - HANDLING AND STORAGE

DURING HANDLING AND STORAGE:

Comply with regulations and precautions for "Blasting Agent, n.o.s." classification by regulatory agencies. Wear chemical resistant gloves and boots.

OTHER PRECAUTIONS:

May cause shrinkage of leather shoes and gloves, avoid contact; slightly corrosive to ferrous metals.

SECTION 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

RESPIRATORY: Dust/Mist Mask is advisable

VENTILATION: Ambient

GLOVES: Chemical resistant

EYE: Safety Glasses or Goggles

OTHER PROTECTIVE EQUIPMENT: None required.

THRESHOLD LIMIT VALUE: Nitrogen dioxide = 3 ppm
Nitrous oxides = 25 ppm

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE: N/A

MELTING POINT: N/A

VAPOR DENSITY: N/A

EVAPORATION RATE: N/A

PERCENT VOLATILE BY VOLUME: N/A

SOLUBILITY IN WATER: NO

Density: 1.15 - 1.25 gm/cc

APPEARANCE AND ODOR:

Gel ; odor of fuel or mineral oil; grey in color, with solid ammonium nitrate prill throughout the mix. Packaged in 1.5 to 3 inch polyethylene cartridges and/or 3.5 to 9 inch diameter woven polypropylene shot bags, with polyethylene liner.

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: High heat in a confined area.

HAZARDOUS DECOMPOSITION PRODUCTS: NO_2, NO_x, CO_2, Ammonia

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11 - TOXICOLOGICAL DATA

ACUTE TOXICITY: Not Established

SECTION 12 - ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND EFFECTS: Not Established

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: The contaminated material is to be placed down a borehole to be utilized as part of the blast. If local regulations allow, it may be burned in a shallow layer on barren ground.

RCRA INFORMATION: Any other form of disposal of this product may be subject to RCRA regulations (40 CFR 261) due to the characteristic(s)/chemical(s) listed in section 2.

SECTION 14 - TRANSPORT INFORMATION

Regulatory classifications are as follows:

DOT: Blasting Agent **OSHA:** Blasting Agent **MSHA:** Blasting Agent

USA DOT:

SHIPPING NAME: Explosive, blasting, type E, UN0332
HAZARD CLASS AND DIVISION: 1.5D
ID NUMBER: UN0332 **REFERENCE No.:** EX-9008114
PACKING GROUP: II
DANGEROUS WHEN WET: NO
POISON: NO
LABEL(s): Blasting Agent **PLACARD(s):** Blasting Agent 1.5D
PRODUCT RQ: N/A **ERG NUMBER:** 112

SECTION 15 - REGULATORY INFORMATION

Governmental Inventory Status: All components comply with TSCA, and EINECS/ELINCS.

US Superfund Amendments and Reauthorization Act (SARA) Title III: This product is considered an "Extremely Hazardous Substance". This product also contains Ammonium Nitrate which is reportable to SARA(313) toxic release program.

SECTION 16 - OTHER INFORMATION

This product meets UN standards for Blasting Agent as outlined in TDG Manual of Tests and Criteria. Second Revised Edition.

The Ensign-Bickford company

MATERIAL SAFETY DATA SHEET

ENSI159

Manufacturer's Name:

The Ensign-Bickford Company

Address:

P.O. Box 310, Spanish Fork, Utah 84660
Or
660 Hopmeadow St., Simsbury, CT 06070

Emergency Telephone No:

Product Information: 1-801-798-8613
1-860-843-2276
CHEMTREC: 1-800-424-9300

Chemical Name and Synonyms:

Mixture

Trade Name and Synonyms:

Trojan™ Spartan™ Boosters
Trojan™ LU Boosters (6oz and larger)
Trojan™ LSU Boosters
Trojan™ LP Boosters
Trojan™ 6L-1H Booster
Trojan™CB-15 Booster
Trojan™Twinplex Boosters
Trojan™ C-30 Yellow Cone Booster
ETI HDP Boosters
Pentex D Boosters
Pentex 50 Boosters
Optiprime® Boosters
Trojan™ LE-150 Seismic Products
Trojan™ Geoprime™ Seismic Products

Cage Code: 96336

EBCo Product Code: N/A

Ingredients (one or more):	C.A.S.	No. OSHA PEL	ACGIH TLV
Pentaerythritol Tetranitrate (PETN)	78-11-5	None Established	None Established
Trinitrotoluene (TNT)	118-96-7	1.5mg/m³	0.5mg/m³
Aluminum (Al)	7439-92-1	15.0mg/m³	10.0 mg/m³

VIL_RESP03934

Boiling Point:
N/A

Specific Gravity:
1.5 – 1.7 g/ml

Vapor Pressure:
N/A

Percent Volatile:
N/A

Vapor Density:
N/A

Evaporation Rate:
N/A

Solubility in Water:

PETN:	Insoluble
TNT:	0.013 g/100g 20°C
Al:	Insoluble

Melting Point:

PETN:	140° C
TNT:	79° C
Al:	933°C
PETN/TNT Eutectic:	76°C

Appearance and Odor:
Yellow, brown or gray/green solid in a cardboard or plastic canister

Flash Point:
N/A

Exposure Limits:
LEL: N/A **UEL:** N/A

Special Fire Fighting Procedures:
DO NOT FIGHT FIRES INVOLVING EXPLOSIVES. ISOLATE THE AREA. EVACUATE PERSONNEL TO A SAFE PLACE. EXPLOSIVE DETONATION CAN OCCUR.

Extinguishing Media:
Do not fight fires involving explosives. Water may be applied through a fixed extinguishing system (sprinklers) as long as people need not be present for the system to operate.

Unusual Fire and Explosion Hazards:
May detonate if exposed to shock, heat, impact, sparks or friction. Oxides of nitrogen and carbon are released when the product is burned.

Auto Ignition Temperature:
N/A

Eye Contact:	Flush immediately with running water for at least 15 minutes. Seek medical attention.
Skin Contact:	Wash thoroughly with soap and water if skin irritation occurs; seek medical attention.
Inhalation:	PETN can lower blood pressure. PETN is a vasodilator. If detonation fumes are inhaled remove victim to fresh air. If not breathing, give artificial respiration. Possible liver damage from TNT. May affect ability of blood to carry oxygen. Seek immediate medical attention.
Ingestion:	See; Inhalation. Seek immediate medical attention.

Eye Contact:	Flush using running water for 15 minutes. If irritation persists, seek medical attention.
Skin Contact:	Wash thoroughly with soap and water if skin irritation occurs; seek medical attention.
Inhalation:	Remove victim to fresh air. If not breathing administer artificial respiration. Seek medical attention.
Ingestion:	Seek medical attention.

Stability:	Stable
Conditions To Avoid:	May detonate if exposed to sufficient heat, shock, friction, impact and static charge.
Incompatibility:	Strong acids, alkalis and oxidizers.
Hazardous Decomp Products:	Detonation, burning or exposure to incompatible chemicals will produce hydrogen and oxides of carbon and nitrogen.
Hazardous Polymerization:	Will not occur.

Steps To Be Taken In Case Material is Released or Spilled:	Review Fire and Explosive Hazards and Safety Precautions before proceeding with clean-up. Use appropriate Personal Protective Equipment during clean-up. Isolate the spill area; removing all sources of ignition from the location. Carefully collect the spilled material and place in a (Velostat) conductive bag. Contamination of this material with sand, grit or dirt will render the material more sensitive to detonation. If safe; separate material that is not contaminated from contaminated material. "Loose" powder spills should be wetted down and cleaned using a damp rag or sponge. Store all collected material in a secure area, to await proper disposal. Only qualified personnel should perform any clean-up and disposal of material.
Waste Disposal Method:	Waste is classified as hazardous with the characteristic of reactivity. EPA Hazardous Waste Number D003. Any such waste should be handled in accordance with local, state and federal regulations. The current-preferred method of destruction of such waste is open burning. All destruction is to be performed by qualified personnel at a licensed (TSD).

The Ensign-Bickford company

MATERIAL SAFETY DATA SHEET

Respiratory Protection:	OSHA/NIOSH approved dust, mist and fume filter respirator.
Ventilation:	Mechanical ventilation is generally not recommended for control of "Secondary" high explosives that are unreacted due to the possible accumulation of sensitive explosive in the ventilation system. Ventilation should be if used in underground mines or if any special product testing is to be performed indoor for the control of carbon and nitrogen oxides.
Protective Gloves:	Protective gloves of rubber or Neoprene should be worn.
Eye Protection:	Safety glasses.
Other Protection:	Protective overalls.

Precautions To Be Taken In Handling and Storage:	Transportation and storage must be in accordance with local, state and federal regulations. Store away from sparks or other ignition sources. Avoid heat, shock and impact
Other Precautions:	Refer to Manufacturer's Instructions and Warnings supplied with product.
SARA 313 Information:	This product does not contain any chemical that is subject to the reporting requirements of SARA Title III; Section 313.

Latest Revision Date: 3/8/1999

DYNO
Dyno Nobel

MATERIAL SAFETY DATA SHEET
DYNO NOBEL INC.
11TH FLOOR CROSSROADS TOWER
SALT LAKE CITY, UTAH 84144
PHONE: 801-364-4800 FAX: 801-328-6452
E-MAIL: DNNA.HSE@AM.DYNONOBEL.COM
FOR 24 HOUR EMERGENCY CALL 800-424-9300

MSDS# 1009

DATE: 01/17/03

Supersedes MSDS
1009 03/01/02

SECTION I - PRODUCT IDENTIFICATION

Trade Name(s): ANFO
DYNOMIX™, DYNOMIX™ (U G)
DYNOMIX™ WR

Product Class: Bulk or packaged ANFO

Product Appearance & Odor: Pale, oil-covered prills with fuel oil odor.

DOT Hazard Shipping Description: Ammonium nitrate-fuel oil mixture 1 5D NA0331 II
For DYNOMIX™ WR: Explosive, blasting, type B 1 5D UN0331 II

NFPA Hazard Classification: Not Available (See Section IV - Special Fire Fighting Procedures)

SECTION II - HAZARDOUS INGREDIENTS

Ingredients:	CAS#	% (Range)	TLV-ACGIH
Ammonium Nitrate	6484-52-2	92-95	No Value Established
Fuel Oil	68476-34-6	4-7	No Value Established
Guar Gum* (Nuisance Dust)	9000-30-0	0-3	5 mg/m^3

*DYNOMIX™ WR is the only product containing guar gum.

Ingredients, other than those mentioned above, as used in this product are not hazardous as defined under current Department of Labor regulations

SECTION III - PHYSICAL DATA

Boiling Point: Not Applicable

Vapor Pressure: <5 mm Hg @ 75° F

Vapor Density: > 1

Density: 0 8 to 1 0 g/cc bulk density

Percent Volatile by Volume: < 8 (Fuel oil)

Solubility in Water: Ammonium Nitrate component completely soluble

Evaporation Rate (Butyl Acetate = 1): < 1

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: >120° F (49°C)

Flammable Limits: Not Available

Extinguishing Media: (See Special Fire Fighting Procedures section.)

Special Fire Fighting Procedures: Do not attempt to fight fires involving explosive materials. Evacuate all personnel to a predetermined safe location, no less than 2,500 feet in all directions.

Unusual Fire and Explosion Hazards: Can explode or detonate under fire conditions. Burning material may produce toxic vapors.

SECTION V - HEALTH HAZARD DATA

Effects of Overexposure

Eyes: May cause irritation, redness and tearing.

Skin: Prolonged contact may cause irritation.

Ingestion: Large amounts may be harmful if swallowed

Inhalation: May cause dizziness, nausea or intestinal upset

Systemic or Other Effects: None known.

Emergency and First Aid Procedures

Eyes: Irrigate with running water for at least fifteen minutes. If irritation persists, seek medical attention.

Skin: Wash with soap and water.

Ingestion: Seek medical attention.

Inhalation: Remove to fresh air.

Special Considerations: None

SECTION VI - REACTIVITY DATA

Stability: Stable under normal conditions. May explode when subjected to fire, supersonic shock or high-energy projectile impact, especially when confined or in large quantities

Conditions to Avoid: Keep away from heat, flame, ignition sources and strong shock

Materials to Avoid (Incompatibility): Corrosives (strong acids and strong bases or alkalis)

Hazardous Decomposition Products: Carbon Monoxide (CO) and Nitrogen Oxides (NO_x)

Hazardous Polymerization: Will not occur

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be taken in Case Material Is Released or Spilled: Protect from all ignition sources. In case of fire evacuate area not less than 2,500 feet in all directions Notify authorities in accordance with emergency response procedures. Only personnel trained in emergency response should respond. If no fire danger is present, and product is undamaged and/or uncontaminated, repackage product in original packaging or other clean DOT approved container. Ensure that a complete account of product has been made and is verified. Follow applicable Federal, State and local spill reporting requirements Contact of this product with water may result in a reportable release.

Waste Disposal Method: Disposal must comply with Federal, State and local regulations. If product becomes a waste, it is potentially regulated as a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR, part 261. Review disposal requirements with a person knowledgeable with applicable environmental law (RCRA) before disposing of any explosive material.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Ventilation: Not required for normal handling Forced ventilation may be necessary where natural ventilation is limited

Respiratory Protection: None normally required. In a dusty environment, or in hot, enclosed areas, respiratory protection may be needed.

Protective Clothing: Gloves and work clothing that reduce skin contact are suggested.

Eye Protection: Safety glasses are recommended.

Other Precautions Required: None

SECTION IX - SPECIAL PRECAUTIONS

Precautions to be taken in handling and storage: Store in cool, dry, well-ventilated locations Store in compliance with Federal, State, and local regulations. Keep away from heat, flame, ignition sources and strong shock.

Precautions to be taken during use: Avoid breathing the fumes or gases from detonation of explosives. Use accepted safe industry practices when using explosive materials. Unintended detonation of explosives or explosive devices can cause serious injury or death.

Other Precautions: It is recommended that users of explosive materials be familiar with the Institute of Makers of Explosives Safety Library publications.

SECTION X - SPECIAL INFORMATION

The reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372 may become applicable if the physical state of this product is changed to an aqueous solution If an aqueous solution of this product is manufactured, processed, or otherwise used, the nitrate compounds category and ammonia listing of the previously referenced regulation should be reviewed

information contained herein. (No warranty, either expressed or implied, of merchantability or fitness for a particular purpose, or of any nature with respect to the product, or to the information, is made herein.)

EZ-Det

The Ensign-Bickford company

ENSI123

MATERIAL SAFETY DATA SHEET

HMIS	
X	PROTECTIVE EQUIPMENT

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION	
Manufacturer's Name: The Ensign-Bickford Company 660 Hopmeadow St. Simsbury, CT 06070	**Emergency Telephone No:** Product Information: (860) 843-2276 (860) 658-4411 (24 hours a day)
Chemical Name and Synonyms: Not applicable	**Trade Name and Synonyms:** PRIMADET® NONELECTRIC DETONATORS, SHORT LEAD (SL), EZ TRUNKLINE™ DELAY (EZTL), NOISLESS TRUNKLINE DELAY (NTD), LONG PERIOD (LP), EZ DET®, MILLISECOND (MS), MS CONNECTOR (MSC), EZ DRIFTER®), OPTIMIZER®, OPTISLIDE®, OPTISURFACE®, OPTI-TL®
Cage Code: 96336	**EBCo Product Code(s):** SL, EZTL, NTD, LP, EZ Det®, MS, MSC, EZ DRIFTER®, OPTIMIZER®, OPTISLIDE®, OPTISURFACE®, OPTI®-TL®

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS			
Ingredient:	**CAS NUMBER**	**OSHA PEL**	**ACGIH TLV**
Molybdenum	7439-98-7	15 mg/m3	10 mg/m3
Tungsten	7440-33-7	5 mg(W)/m3 insoluble, 1 mg(W)/m3 soluble	5 mg(W)/m3 insoluble, 1 mg(W)/m3 soluble
Aluminum	7429-9-5	15 mg/m3 total dust 5 mg/m3 resp. frac.	10 mg/m3
Silicon	7440-21-3	15 mg/m3 total dust 5 mg/m3 resp. frac.	15 mg/m3 total dust 5 mg/m3 resp. frac.
Selenium	7782-49-2	0.2 mg/m3	0.2 mg/m3
Potassium Perchlorate	7778-74-7	None	None
Red Lead (Lead tetroxide)	1314-41-6	0.05 mg(Pb)/m3	0.05 mg(Pb)/m3
Titanium Dioxide	13463-67-7	10 mg/m3	10 mg/m3
Barium Chromate	12094-40-3	TWA 2691.41 mg(CrO_3)/m3; 0.5 mg/(Ba)/m3	TWA 0.5 mg/(Ba)/m3 0.05 mg(Cr)/m3 confirmed carcinogen
Lead Chromate	7758-97-6	TWA 0.05 mg(Pb)/m3; CL 0.1 mg(CrO_3)/m3	0.05 mg(Cr)/m3; confirmed carcinogen
Barium Sulfate	7727-43-7	15 mg/m3 total dust 5 mg/m3 resp. frac.	10 mg/m3 total dust
Silica (crystalline)	61790-53-2	TWA Resp Frac 10 mg/m3/2(%SiO_2+2); TWA 0.05 mg/m3	TWA Resp Frac 0.05 mg/m3
Pentaerythritol Tetranitrate (PETN)	78-11-5	None	None
Lead Azide	13424-46-9	0.05 mg(Pb)/m3	0.15 mg(Pb)/m3 TWA
Lead	7439-92-1	0.05 mg(Pb)/m3	0.15 mg(Pb)/m3 TWA
Antimony	7440-36-0	TWA 0.5 mg/m3	TWA 0.5 mg/m3
Cyclotetramethylenetetranitramine (HMX)	02691-41-0	Not established	Not established

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Detonators are designed to explode with substantial energy release. Detonators are not to be placed in contact with corrosive acidic or caustic environments which may corrode the aluminum detonator shell to potentially allow ingress of contaminants which increase the sensitivity of the internal components. Detonators must not be subjected to impact, electrostatic discharge or conditions that could penetrate the aluminum shell and cause detonation.

POTENTIAL HEALTH EFFECTS:

Eye Contact:	Not a likely exposure because the detonator is sealed and the user is not subjected to the component during normal handling and before detonation. Post detonation reaction products may produce dust that can irritate; corneal injury may result. Flush immediately with running water for at least 15 minutes. Seek Medical attention. Symptoms of exposure include redness, swelling, itching, tearing and pain.
Skin Contact:	Not a likely route of exposure since the detonator is a sealed assembly. If exposed to post-detonation reaction products occurs, wash thoroughly with soap and water. If skin irritation occurs, seek medical attention. Symptoms may include redness, swelling, itching and pain.
Inhalation:	Breathing dust from post detonation reaction products can cause nasal and respiratory irritation and lowering of blood pressure. Lead exposure at high levels can cause acute or chronic symptoms can range from eye and skin irritation to permanent brain damage, vomiting and convulsions. Prolonged or repeated exposure to post function residue may result in respiratory tract irritation, and symptoms may include coughing, shortness of breath, sore throat and runny nose. If sufficient amounts are inhaled and absorbed, symptoms may resemble those in acute ingestion.
Ingestion:	See INHALATION. Post function residue is toxic by ingestion. Symptoms may include gastroenteritis (inflammation of the lining membrane of the stomach and intestines) with abdominal pain, nausea, vomiting and diarrhea. Systemic effects may follow and may include ringing of the ears, dizziness, elevated blood pressure, blurred vision and tremors.
Carcinogenicity:	ACGIH classifies Lead as a "Suspected Human Carcinogen", and insoluble Chromium VI as "Confirmed Human Carcinogen". NTP, OSHA, and IARC consider components contained in this detonator carcinogenic. Reference Section 11, Toxicological Information, in this MSDS.

SECTION 4 - FIRST AID MEASURES

Product is fully contained and presents low risk of skin contact, ingestion or inhalation of chemical constituents during normal handling. Personnel could be exposed to by-products during functional detonation of the unit and post clean up.

Eye Contact:	Flush using running water for at least 15 minutes. If irritation persists, seek medical attention.
Skin Contact:	Wash exposed area with soap and water. If irritation persists, seek medical attention.
Inhalation:	Remove victim to fresh air. If breathing is difficult, give oxygen. If not breathing, administer artificial respiration. Seek medical attention.
Ingestion:	Give large quantities of water. Induce vomiting in a conscious victim. Seek immediate medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: N/A	**Explosive Limits:** LEL: N/A UEL: N/A
Special Fire Fighting Procedures:	DO NOT FIGHT FIRES INVOLVING DETONATORS OR EXPLOSIVES, PRODUCT MAY EXPLODE. ISOLATE THE AREA, EVACUATE PERSONNEL TO A SAFE DISTANT LOCATION. ALLOW FIRE TO BURN OR FIGHT FIRE REMOTELY.
Extinguishing Media:	DO NOT FIGHT FIRES INVOLVING DETONATORS AND EXPLOSIVES. Water may be applied through fixed extinguishing system (sprinklers) as long as people need not be present for the system to operate. Extinguish fire using inert powder, but only If it can be applied remotely.
Unusual Fire and Explosion Hazards:	All the PRIMADET® Nonelectric Detonators covered in this MSDS are sealed at manufacture. Should a detonator break open to expose the internal components, extreme care must be used when handling. Only authorized personnel should handle a damaged detonator. A damaged detonator can explode if exposed to shock, impact, friction, or electrostatic discharge (ESC). Hazardous gasses released upon detonation are nitrogen oxides, carbon monoxide and carbon dioxide. The likelihood of mass detonation is increased if the fire occurs in a confined space. All personnel must be evacuated.
Auto Ignition Temperature:	190°C at which PETN may detonate. Other components may also detonate at higher temperatures.
Hazardous Combustion Products:	Hazardous gasses produced are oxides of nitrogen and carbon. Airborne particulates, including the metals found in Section 2 may be released.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

For the following reasons, only properly qualified and authorized personnel should involved with handling and clean-up of damaged detonators PRIMADET® Nonelectric Detonators contain Lead Azide which is extremely sensitive to initiation by electrostatic discharge which can cause detonation. Precautions must be taken to avoid generation and discharge of electrostatic energy during all procedures. In the event of any spill of loose powder, such as from a broken detonator, all spilled material should be treated with Ceric Ammonium Nitrate killing solution (10%). This will chemically decompose the Lead Azide, but PETN and pyrotechnics will remain reactive, therefore, all residue materials must be assumed to be explosive-contaminated until proper waste disposal (see below) is complete. Only qualified personnel should perform a clean up and disposal of explosive material. Use recommended exposure controls/protective clothing, equipment and handling procedures (see Section 7 & Section 8).

Review Fire and Explosive Hazards and Safety Precautions before proceeding with clean up. Isolate the spill area; removing all sources of ignition from the location. Remove all explosives that were not involved in the spill from the spill area. Carefully collect the spilled material and place in a (Velostat®) electrically conductive bag. Contamination of this material with sand, grit, or dirt will render the material more sensitive to detonation. If safe, separate material that is not contaminated from contaminated material. Loose powder spills should be cleaned-up in a manner that does not disperse dust into the air. The preferred method is to desensitize the spilled material with water and wipe up with a soapy damp sponge. Collect wash water for approved disposal. Store all collected water/material in a secure area, to await proper disposal. Keep from entering water or ground water.

SECTION 7 - HANDLING AND STORAGE

<u>HANDLING:</u> *Only properly qualified and authorized personnel should handle and use PRIMADET® Nonelectric Detonators.* Avoid breathing post-detonation dust; avoid getting in eyes or on skin. Wash thoroughly after handling shot detonators or after exposure to post-detonation residues. Protect shipping container against physical damage. Store in cool, dry place, and avoid sources of heat, shock, impact, friction and electrostatic discharge (ESD). Utilize recommended exposure controls/protective clothing (Section 8) when working with post-detonation residues or the contents of a damaged detonator.

<u>TRANSPORTATION AND STORAGE:</u> Must be in accordance with Federal, State and Local Regulations. Store away from sparks or other ignition sources. Avoid heat, impact and shock.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection:	NIOSH/MSHA approved high-efficiency particulate respirator to protect against dust if OSHA PEL is exceeded. NIOSH/MSHA approved self-contained respirator for emergency use. However, respiratory protection is not required for normal use of these detonators providing PEL is not exceeded.
Ventilation:	Product is intended for outside use and underground mines. Ventilation should be provided for underground use. Ventilation should also be provided if repetitive indoor testing is to be performed. Provide local exhaust and mechanical ventilation as needed so as not to exceed PEL.
Protective Gloves:	Not required for normal use and handling of detonators as received from the manufacturer. Protective gloves should be worn when handling post-detonation residues, the contents of damaged detonators, and any chemicals used to chemically decompose Lead Azide. Rubber gloves are recommended.
Eye Protection:	Safety glasses or goggles are recommended for handling, testing, or clean up.
Other Protection:	Detonators are to be handled only by qualified and authorized personnel. Follow instructions on the manufacturers data sheet.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Component	Boiling Point (°C)	Melting Point (°C)	Solubility in Water	Specific Gravity (gm/cc)
Molybdenum	425	2622	No	10.2
Tungsten	5900	3980	No	19.3
Aluminum	2450	660	No	2.7
Silicon	2675	1410	No	2.4
Selenium	690	217	No	4.81
Potassium Perchlorate	Decomp at melting	400 decomp	Yes	2.52
Red Lead	Decomp at melting	500 decomp	No	9.29
Titanium Dioxide	Decomp at melting	1640 decomp	No	4.26
Barium Chromate	Not established	Not established	No	4.5
Lead Chromate	Decomp at melting	844	No/slight	6.3
Barium Sulfate	Decomp at melting	1580	No	4.5
Silica (crystalline)	2230	1710	No	2.6
PETN	Decomp at melting	140	Slight	1.76
Lead Azide	Decomp at melting	Explodes 330	Slight	4.8
Lead	1740	327	No	11.34
Antimony	1636	630	No	6.68
HMX	Decomp at melting	274	Slight	1.96

Boiling Point:
Aluminum: 1 mm @ 1284°C
Lead: 1 mm @ 973°C

Specific Gravity:
See above table

Vapor Pressure: N/A
Vapor Density: N/A
Percent Volatile: N/A
Evaporation Rate: N/A

Appearance and Odor: The aluminum detonator shell contains a lead sheathed pyrotechnic which is located between an explosive output change consisting of PETN and or Lead Azide, and a length of flexible plastic tube (Shock Tube). The shock tube is inserted into a black rubber bushing and both are retained in the aluminum shell by a secure crimp at the open end of the shell. The shock tube contains a dust on the inside surface of a mixture of explosive and aluminum powder. The shock tube may be of various colors, vary from several feet to over one hundred feet in length, in coils or on spools. The detonator may be enclosed in a plastic housing (connector), and the MS Connector has a detonator and plastic housing on each end of a short length of shock tube.
Odor: odorless

SECTION 10 - STABILITY AND REACTIVITY

Stability:	Stable under normal conditions, but improper handling can result in accidental detonation.
Conditions To Avoid:	High temperatures, shock, impact, friction and electrical static discharge (ESD).
Incompatibility:	Detonators are designed to explode with substantial release of energy to initiate other explosive devices. Detonators are not to be placed in corrosive environments that may corrode the aluminum detonator shell to allow ingress of contaminants that may react adversely with internal components.
Hazardous Decomposition Products:	Functioning of these PRIMADET® Non Electric Detonators, may evolve oxides of carbon (CO and CO_2) and oxides of nitrogen, heavy metal oxides, sulfides and chromates. Solid elemental Lead and Antimony and fumes will be present.
Hazardous Polymerization:	Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION	
Compound	Toxicological Information
Molybdenum	**Carcinogenicity:** not listed as carcinogenic by NTP, IARC or OSHA. **Irritant:** fumes and dust may cause eye, nose, throat, and respiratory tract irritation. **General Toxicity:** LDLo 70 mg/kg in rabbit caused fibrosis, focal effects. **Reproductive Effects:** TDLo 448 mg/kg oral mouse (multigenerations) caused fetotoxicity, fetal death. **Mutagenicity:** cytogenetic analysis, rat-inhalation, dose 19500 ng/m^3, ref. Gig Tr Prof Zabol, vol 24(9), pg 33, 1980 (GTPZAB)
Tungsten	**Carcenogenicity:** not listed as carcinogenic by NTP, IARC or OSHA. **Irritant:** 500 mg/24H, mild irritant to eyes and skin (rabbit), dust may cause eye, throat, and irritation. **General Toxicity:** LD50 rat intraperitoneal dose 5 gm/kg effects vascular, blood and liver. **Reproductive Effect:** LDLo oral rat dose 1210 ug/kg, (35W pre) musculoskeletal system abnormalities, changes, post-implantation mortality.
Aluminum	**Carcenogenicity:** not listed as carcinogenic by NTP, IARC or OSHA. **Irritant:** mild irritant to eyes, dust may cause eye, throat, or respiratory irritation. **General Toxicity:** Inhalation of finely divided powder may cause pulmonary fibrosis. **Mutagenicity:** no data.
Silicon	**Carcenogenicity:** not listed as carcinogenic by NTP, IARC or OSHA. **Irritant:** mild irritant to eyes (eye, rabbit, 3 mg), dust may cause skin or respiratory irritation. **General Toxicity:** LDLo intraperitoneal, rat, dose 500 mg/kg, effect sense organs and special senses, lungs, thorax or respiration. **Reproductive Effect:** no data. **Mutagenicity:** no data
Selenium	**Carcenogenicity:** not listed as carcinogenic by NTP, IARC or OSHA. TDLo 480 mg/kg/60D-C, oral mouse, tumorigenic, skin and appendages. **Irritant:** eye and respiratory irritation. **General Toxicity:** Reported kidney damage, liver damage to lab animals from chronic exposure. LCLo inhalation rat 33 mg/kg/8H, hemorrhage, empkysema, acute pulmonary edema, LD50 oral rat 6700 mg/kg, somnolence, dyspnea. **Reproductive Effect:** LDLo oral mouse is 134 mg/kg producing fetotoxicity, fetal death. **Mutagenicity:** no data.
Potassium Perchlorate	**Carcenogenicity:** not listed as carcinogenic by NTP, IARC or OSHA. **Irritant:** may cause eye and respiratory irritation. **General Toxicity:** no data. **Reproductive Effects:** TDLo oral rat 27675 mg/kg causes abnormalities of endocrine system. **Mutagenicity:** no data
Red Lead (Lead Tetroxide)	**Carcenogenicity:** Red lead is not listed by NTP, IARC or OSHA as carcinogenic, however, Lead is an IARC listed 2B carcinogen, possibly carcinogenic to humans, see Lead. **Irritant:** no data. **General Toxicity:** excessive exposure may cause nervous, digestive, renal and reproductive system disorders. Moderately toxic by ingestion. LDLo guinea pig oral dose 1 gm/kg effected behavior, nucleated red blood cells. **Reproductive Effect:** may cause reproductive system disorders with excessive exposure. **Mutagenicity:** no data.
Titanium Dioxide	**Carcenogenicity:** not listed by NTP, IARC or OSHA as carcinogenic to humans. TCLo inhalation rat dose 250 mg/m^3 tumorigenic to lungs, thorax or respiratory system. **Irritant:** mild human skin irritant, 300 ug/3D-I. **General Toxicity:** no data. **Reproductive Effect:** no data. **Mutagenicity:** no data.
Barium Chromate	**Carcenogenicity:** Listed as NTP and IARC as a Group 1 chemical, carcinogenic to humans. **Irritant:** may cause severe skin, eye and respiratory irritation. **General Toxicity:** no data. **Reproductive Effect:** no data. **Mutagenicity:** no data.
Lead Chromate	**Carcinogenicity:** NTP 5th Report, IRAC group 1 classification as carcinogenic to humans. ACGIH lists Lead Chromate as a substance suspect of carcinogenic potential in man. TDLo subcutaneous rat dose 135 mg/kg causes tumors at site of application. **Irritant:** May cause skin, eye and respiratory irritation. **General Toxicity:** LD50 oral rat dose >12 gm/kg. **Reproductive Effect:** no data. **Mutagenicity:** no data.

Barium Sulfate	**Carcenogenicity:** Not listed by NTP, IARC or OSHA as carcinogenic. TDLo intrapleural rat dose, 200 mg/kg produced tumors of lungs, thorax or respiration. **Irritant:** may cause skin and eye irritation. **General Toxicity:** LD intratracheal mouse, >600 uL/kg produced changes in lungs, thorax or respiration. **Reproductive Effect:** no data. **Mutagenicity:** : Micronucleus test, mouse intraperitoneal dose 12500 ug/kg, effect not listed (ref: GWZHEW)
Silica (Ottawa Sand) (*crystalline silica*)	**Carcenogenicity:** Classified by IARC as a Group 2A chemical, which is probably carcinogenic to humans. **Irritant:** *mild to eyes.* **General Toxicity:** Exposure to crystalline free silica may cause silicosis, pulmonary fibrosis. Moderately toxic as an acute irritating dust. **Reproductive Effect:** no data. **Mutagenicity:** no data
Pentaerythritol Tetranitrate (PETN)	**Carcenogenicity:** Not listed by NTP, IARC or OSHA as carcinogenic. **Irritant:** Skin and eye irritant. **General Toxicity:** moderately toxic by ingestion. Vasodilator. PETN can lower blood pressure. LD50 intraperitoneal mouse dose >5 gm/kg causes arteriolar or venous dilation. TDLo oral man, 1669 mg/kg/8Y-C, dermatitis after systemic exposure. **Reproductive Effect:** no data. **Mutagenicity:** no data.
Lead Azide	**Carcinogenicity:** Not considered to be a carcinogen by IARC, NTP or OSHA, however, Sax's Dangerous Properties of Industrial Materials lists Lead as IARC 2B, possibly carcinogenic to humans. **Irritant:** may cause eye and skin irritation. **General Toxicity:** A deadly poison may be fatal if swallowed, may cause anemia, kidney damage. **Reproductive Effect:** may cause damage to reproductive system. **Mutagenicity:** no data.
Lead	**Carcenogenicity:** Lead is classified by IARC to be a 2B carcinogen, possibly carcinogenic to humans. **Irritant:** May cause eye and skin irritation. **General Toxicity:** may be fatal if swallowed, may cause anemia, kidney damage and damage to reproductive system. TDLo oral woman dose 450 mg/kg/6Y produced peripheral nerve and sensation effects, hallucinations, distorted perceptions, muscle weakness. TCLo inhalation human Reproductive Effect: may cause damage to reproductive system. TCLo inhalation rat dose, 10 mg/m^3/24H(1-21D preg) produced effects on embryo or fetus (fetotoxicity) or specific developmental abnormalities of the blood and lymphatic systems. **Mutagenicity:** no data
Antimony	**Carcinogenicity:** Antimony is not considered to be carcinogenic by the IARC, NTP or OSHA. TCLo inhalation rat, dose 50 mg/m^3/7W/52W-I, causes tumors of lungs, thorax or respiratory system. **Irritant:** no data. **General Toxicity:** inhalation of dusts may cause acute pneumonitis, nausea, vomiting. LD50 oral rat dose, 7 gm/k. **Reproductive Effect:** no data. **Mutagenicity:** no data.
HMX	**Carcinogenicity:** Not considered to be a carcinogen by IARC, NTP or OSHA. . **Irritant:** Skin and eye irritant. **General Toxicity:** A poison by ingestion and intravenous routes. LD50 oral guinea pig 300 mg/kg. **Reproductive Effect:** no data. **Mutagenicity:** no data.

SECTION 12 - ECOLOGICAL INFORMATION

Data not available at the present time.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method:	All detonators are classified as hazardous waste with the characteristic of reactivity, EPA Hazardous Waste Number of D003; see CFR 40 Section 261. Any such waste should be treated and stored in accordance with local, state and federal regulations. The current preferred method of waste treatment for waste detonators is remote detonation in a confined chamber designed for this purpose. The (unconfined) detonation of waste detonators may result in the release of lead particulate. Open burning of detonators is likely to result in detonation, and is not recommended. Any treatment of waste detonators must be performed by qualified personnel at permitted facilities and may require a permit.

SECTION 14 - TRANSPORT INFORMATION	
Transportation:	Transport only in accordance with Federal, State and Local regulations for transportation of explosives. Additional reference information for transportation of explosives and energetic materials is provided in the DoD Contractor's Safety Manual for Ammunition and Explosives, DoD 4145.26-M.

SECTION 15 - REGULATORY INFORMATION	
SARA 313 Information:	The Primadet® nonelectric delay detonators listed contain chemicals that are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and 40 CFR Part 372. See attachments for quantities present specific to each product.

SECTION 16 - OTHER INFORMATION	
Disclaimer:	****The information described in this material safety data sheet cannot possibly cover every application of the product or variation of conditions under which the product is used. The recommendations are based on the manufacturer's experiences and research. They are believed to be accurate, but no warranties are made, expressed or implied. The information is offered as typical and not as a product specification. The recommended handling procedures are believed to be generally applicable, however, each user should review these recommendations in the context of the specific intended use.*
Other Precautions:	Refer to Manufacturer's Instructions and Warnings supplied with Product Data Sheet
Prepared By:	E.L. Gladden, Manager M/S
Date Data Sheet Prepared:	May 14, 1999
Data Sheet Reviewed By:	I. W. Fowler